Kurukshetra

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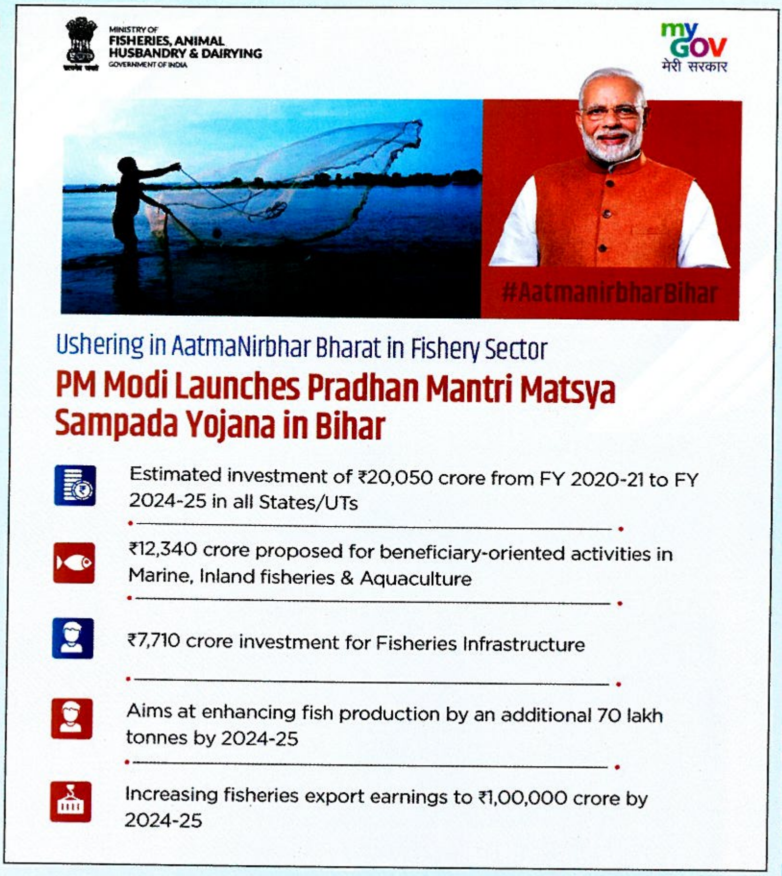
Prime Minister launches PM Matsya Sampada Yojana and e-Gopala App

Prime Minister Shri Narendra Modi launched on September 10, 2020 PM Matsya Sampada Yojana, e-Gopala App and several initiatives linked to studies and research in fisheries production, dairy, animal husbandry and agriculture in Bihar through video conferencing.

Speaking on the occasion, Shri Modi said, the motive behind all these schemes launched is to empower our villages and make India Self-Reliant (AatmaNirbhar Bharat) in the 21st Century. The Prime Minister said the Matsya Sampada Yojana is also being launched with the same motive. He said it is being launched in 21 States of the country with an investment of Rs.20,000 Crores which would be spent in the next 4-5 Years. The Prime Minister said, the scheme provides for new infrastructure, modern equipment and access to new markets to the fish producers. He said, this is the first time after independence, that such a major scheme has been launched in the country for the fisheries sector.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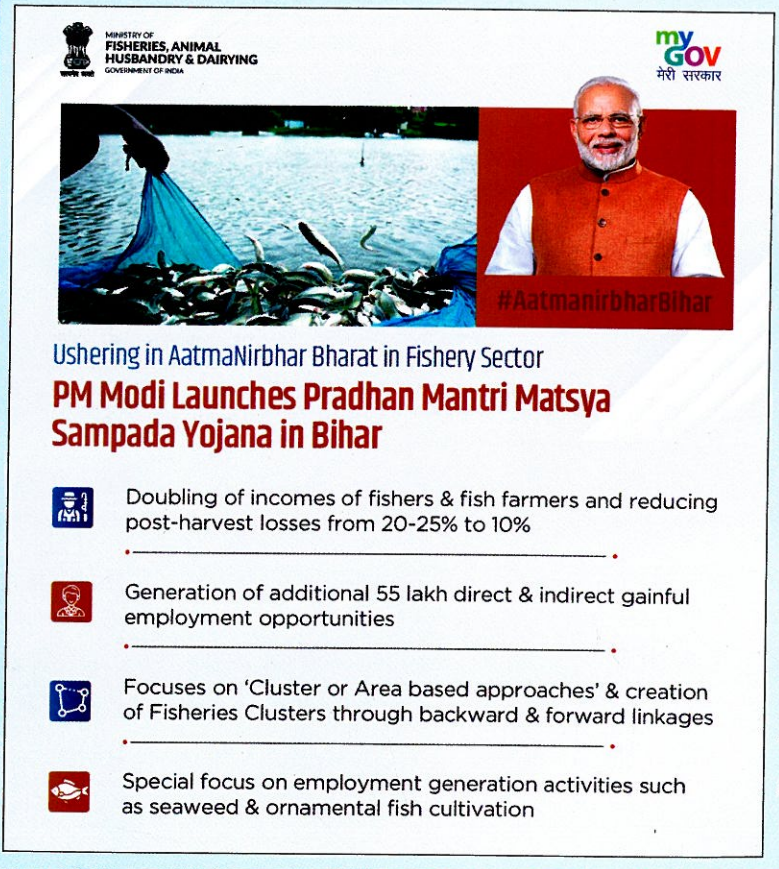
#AatmanirbharBihar

Ushering in AatmaNirbhar Bharat in Fishery Sector

PM Modi Launches Pradhan Mantri Matsya Sampada Yojana in Bihar

- Estimated investment of ₹20,050 crore from FY 2020-21 to FY 2024-25 in all States/UTs
- ₹12,340 crore proposed for beneficiary-oriented activities in Marine, Inland fisheries & Aquaculture
- ₹7,710 crore investment for Fisheries Infrastructure
- Aims at enhancing fish production by an additional 70 lakh tonnes by 2024-25
- Increasing fisheries export earnings to ₹1,00,000 crore by 2024-25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Ushering in AatmaNirbhar Bharat in Fishery Sector

PM Modi Launches Pradhan Mantri Matsya Sampada Yojana in Bihar

- Doubling of incomes of fishers & fish farmers and reducing post-harvest losses from 20-25% to 10%
- Generation of additional 55 lakh direct & indirect gainful employment opportunities
- Focuses on 'Cluster or Area based approaches' & creation of Fisheries Clusters through backward & forward linkages
- Special focus on employment generation activities such as seaweed & ornamental fish cultivation

Shri Modi said keeping in mind the importance of the sector and in order to exclusively deal with various issues concerning fisheries a separate Ministry has been created by the Government of India. This will facilitate our fishermen and colleagues related to fish farming and sale.

The goal is also to double fish exports in the coming 3-4 years. This will create millions of new employment opportunities in the fisheries sector. The Prime Minister said, much of the fish farming depends on the availability of clear water and the Mission Clean Ganga will further help. He added the fisheries sector is also set to benefit from the work being done on river transport in the areas around Ganga river. The mission Dolphin announced on August 15 this year will also have its impact on the fisheries sector. Shri Narendra Modi said that efforts are being made to rope in all villages in the country as engines of growth and helping them make India Self-Reliant.

(Source: Press Information Bureau)

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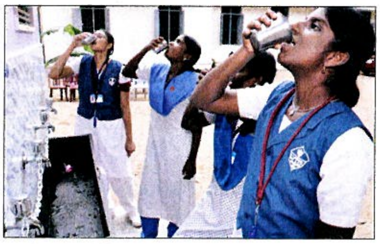

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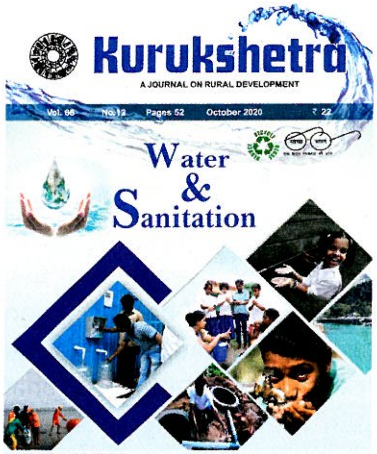
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Kurukshetra seeks to carry the message of Rural Development to all people. It serves as a forum for free, frank and serious discussion on the problems of Rural Development with special focus on Rural Uplift.

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Editorial

As India celebrates 151st birth anniversary of Mahatma Gandhi on October 2nd, 2020, the central theme of this issue is 'Water and Sanitation', two critical issues the father of nation always propagated. India has made a huge stride in the area of sanitation over the last few years. A significant scaling-up of access to toilet facilities through Swachh Bharat Mission has helped build huge sanitation infrastructure which was lacking for the last many decades. The Prime Minister Shri Narendra Modi has personally championed the cause for a Clean India at multiple national and international fora. In this issue, we have focussed on factors associated with ensuring water and sanitation coverage to the rural population. Improvement in water resources management would boost the country's economic growth potential and would contribute greatly to poverty eradication.

Holy river Ganga not only has a huge significance in India's cultural and spiritual lives, it also provides water, food and economic sustenance, to more than 43 percent of the country's population. River Ganga has faced several challenges because of pollution arising out of growing urbanisation and industrial growth while excess water from the river has been used for meeting the needs for agricultural and drinking water needs. This issue also discusses progress made under the Namami Gange programme, implemented by National Mission for Clean Ganga.

Under the Swachh Bharat Mission (Gramin), more than 10 crore Individual household latrines were constructed during 2014-2019. More than 600,000 villages across the country were declared free from open defecation (ODF) on October 2nd, 2019, commemorating the 150th birth anniversary of Mahatma Gandhi. We discuss issues around sustaining the ODF India through improvement in waste management through participations of various institutions such as Panchayati Raj Institutions (PRIs) and others. The impact of Swachh Bharat Mission Gramin (SBMG) has shown that the mission was highly cost-beneficial from both financial and economic perspective while providing physical as well as health security to women because of access to toilets within their residence. UNICEF has estimated that each family in an ODF village in India saves Rs. 50,000 per year on account of avoided medical costs, less sick days and the value of lives saved.

Mahatma Gandhi's views on linking the quest for Swaraj (self-rule) with pursuit for making sanitation a priority has been also covered in this issue. The availability of water is critical for access to sanitation facilities with appropriate disposal of sewage. Ensuring supply of drinking water especially to rural households remains a challenge. In 2019, the Government launched 'Har Ghar Nal Se Jal', a flagship programme under the Jal Jeevan Mission, to provide piped water supply to all rural households by 2024. In addition to ensuring access to piped water across the country, the mission focuses on rainwater harvesting, groundwater recharge and water recycling. We discuss factors around ensuring availability of clean water which would give boost to rural sanitation as well as health.

Rural women are considered the backbone of Indian rural economy as they play an important role in managing their homes as well as the farms and livestock. This issue discusses various aspects and initiatives taken by the government for providing hygiene and sanitation for both girls and women.

We hope that through analytical articles written by various experts from the field, the readers would get comprehensive understanding on the issues associated with water and sanitation. Happy Reading. Stay Safe.

Water Conservation: Initiatives and Future Strategies

Avinash Mishra and Dr. Namrata Singh Panwar

The responsibility of planning and implementing water and sanitation projects, primarily lies with the state governments. The Central Government, playing an advisory role, has formulated several policies and the Model Bills to develop and manage projects, and its uses in various sectors of economic development. These interventions have brought phenomenal changes in the overall scenario of water and sanitation in the country and also provided a way forward about the needs of the sector which have to be fulfilled in coming future to make India a water secure and hygienic country.

In last few years, numbers of reports and ground level realities have reflected that India right now is going through the hard times where water scarcity and poor sanitation facilities are bigger challenge than the economic development. With a country generating 140 BCM of waste water annually, mismanagement of waste water which also contaminates groundwater, lacking liquid waste management, poor sanitation conditions and poor hygiene habits have contributed to a major portion of population suffering from water-borne diseases. The per person disease burden due to unsafe water and sanitation was 40 times higher in India than in China and 12 times higher than in Sri Lanka in 2016. Unsafe water, sanitation, and hand-washing are responsible for 4.6 percent of the disease burden through diarrhoeal diseases and other infections. The disease burden from unsafe water and sanitation was 5 percent of the total in 2016. Total number of cases of water borne diseases (Cholera, Acute Diarrhoeal Diseases, Enteric Fever (Typhoid) and Hepatitis A & E) were 1.65 crores in 2016 and 1.53 crores in 2017 with deaths ranging from 2,520 in 2016 , 2,334 in 2017 and 1,917 in 2018 . In contrast, Global Health Observatory data repository of World Health Organisation (WHO) quotes number of diarrhea deaths from inadequate water, sanitation and hygiene as 2,43,551 (total of all age groups) and number of diarrhea DALYs from inadequate water, sanitation and hygiene as 1,17,31,606 (total of all age groups) in 2016. These stats clearly indicate the need of swift action on the part of Government and it is heartening to see that Government of India has taken several actions in this direction.

As per the Indian Constitution, Water and Sanitation are state-subjects under List II of the Seventh Schedule. The responsibility of planning, funding and implementation of water resources and sanitation projects, primarily lies with the state governments. The Central Government plays an advisory role, and therefore, with the formulation of various policies and the Model Bills, the Centre is making efforts to develop and manage the projects and its uses in various sectors of economic development. Along with the centre, many states have also come up with innovative measures to encourage water conservation and better sanitation practices in their respective jurisdictions. The next sections of the article are going to elucidate some interventions/schemes of centre and states which have brought phenomenal changes in the overall scenario of water and sanitation in the country and provide a way forward about the needs of the sector which have to be fulfilled in coming future to make India a water secure and hygienic country.

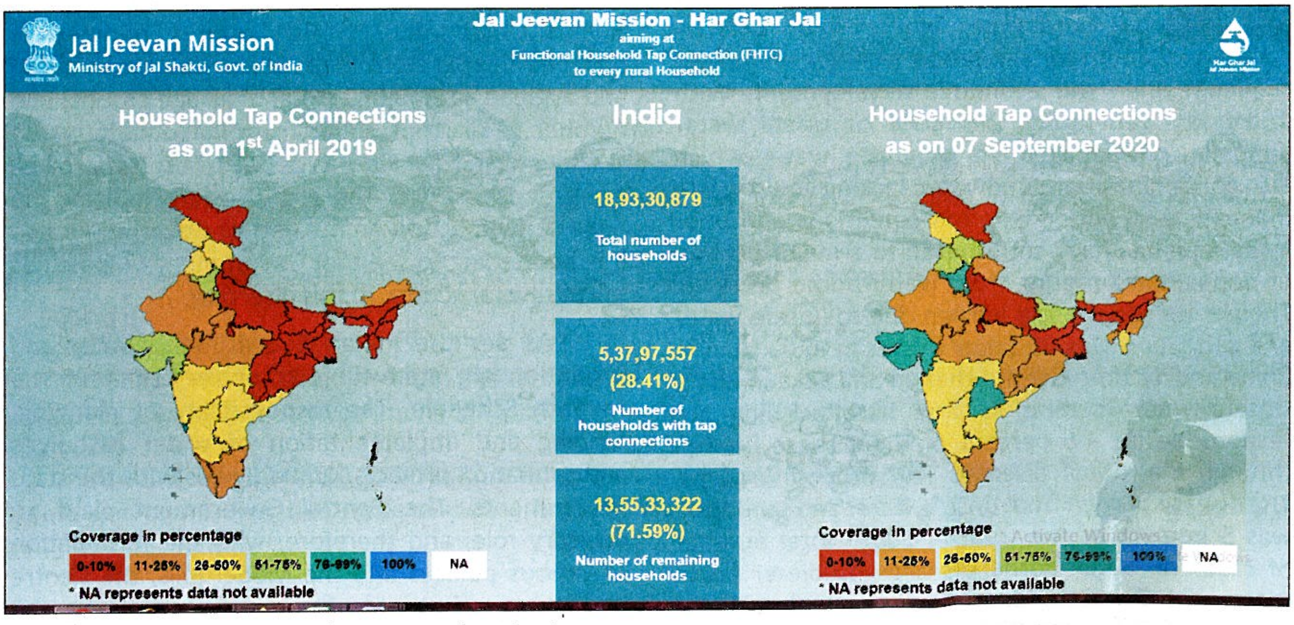
Government Initiatives

On 15th August 2019, Prime Minister Shri Narendra Modi launched the Jal Jeevan Mission (JJM) worth Rs 3.6 lakh crore to supply piped water to every rural household. The vision of the JJM is "Every rural household has drinking water supply in adequate quantity of prescribed quality on regular and long-term basis at affordable service delivery charges leading to improvement in living standards of rural communities". The programme also implements source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation and rain water harvesting. The Jal Jeevan Mission is based on a community approach to water and will include extensive IEC as a key component of the mission. JJM looks to create a jan andolan for water, thereby making it everyone's priority. Since the inception of the Jal Jeevan Mission, the percentage of rural household having access to safe drinking water increased from 18 percent to 28.41 percent.

Ministry of Jal Shakti also launched the Jal Shakti Abhiyan on 1st July 2019, in 256 water stressed districts across the country. This Abhiyan is a mass movement to bring all the stakeholders under one ambit of water conservation drive, and last year it had a nationwide impact. Under this Abhiyan, more than six and a half crore people became a part, comprising of State Governments, Central Governments, Civil Society Organisations, Panchayati Raj Institutions and Communities. More than 75 lakh traditional and other water bodies and tanks were renovated and around one crore water conservation and rainwater harvesting structures were created. Encouraged by the response, Jal Shakti Abhiyan is geared up to combat current health emergency by focusing more on irrigation and water conservation works with the caution that all works are undertaken with strict implementation of social distancing, use of face covers/ masks and other necessary precautions.

Relentless and unplanned extraction of groundwater exceeding the average annual recharge has resulted in widespread decline of the water tables, reduced availability of water in the wells and degradation of the resource manifested through contamination with heavy metals (iron, arsenic, chromium etc.) and fluoride. Keeping these facts in the mind and in order to provide special emphasis on groundwater conservation, in 2020 Budget, Rs. 200 Crore has been allotted for Atal Bhujal Yojana (ABHY). ABHY envisages sustainable ground water management, mainly through convergence among various on-going schemes, with emphasis on

Figure: Progress of Jal Jeevan Mission

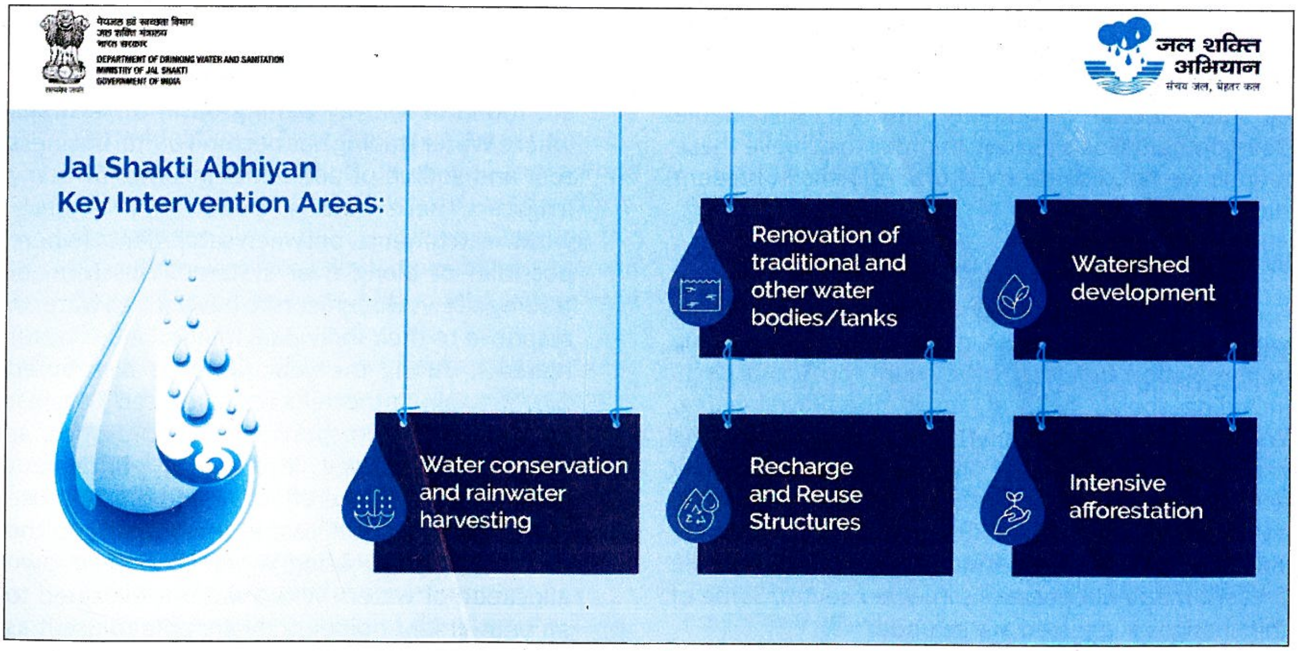

Jal Jeevan Mission
Ministry of Jal Shakti, Govt. of India
Jal Jeevan Mission - Har Ghar Jal
aiming at
Functional Household Tap Connection (FHTC)
to every rural Household
Household Tap Connections
as on 1st April 2019
India
Household Tap Connections
as on 07 September 2020
18,93,30,879
Total number of households
5,37,97,557
(28.41%)
Number of households with tap connections
13,55,33,322
(71.59%)
Number of remaining households
Coverage in percentage
0-10%
11-25%
26-50%
51-75%
76-99%
100%
NA
* NA represents data not available
Coverage in percentage
0-10%
11-25%
26-50%
51-75%
76-99%
100%
NA
* NA represents data not available

Source: https://ejalshakti.gov.in/IMISReports/MIS.html demand side measures through active involvement of local communities and stakeholders. This aspect makes the ABHY a unique centrally sponsored scheme which will endeavor to facilitate efficient implementation and convergence of various ongoing Central and State schemes in the participating States. ABHY will also play a key role in drought proofing, thereby improving climate resilience in select water stressed areas, create better job opportunities through improved skill development, etc., all leading ultimately to sustainable management of ground water.

NITI Aayog, as the premier think tank of Government of India, has also developed a mechanism to compare the efforts of various states in water conservation. In pursuit of competitive & cooperative federalism and keeping in view the criticality of water for life, Aayog has developed a Composite Water Management Index (CWMI). The CWMI as a yearly exercise is an important tool to assess and improve the performance of States/ Union Territories in efficient management of water resources. CWMI compromises of 9 broad sectors with 28 different key performance indicators covering various aspects of ground water, restoration of water bodies, irrigation, farm practices, drinking water, policy and governance. The data for the 28 key performance indicators are uploaded by the States on the online web portal. Index has been quite successful in sensitising the states about the impending water scarcity in the Nation. Since launch of round I of the Index, 80 percent of the states have shown improvement with average change in scores being +5.2 points.

Beside these Central Government Interventions, some of the states have initiated state level programmes which have effectively solved the local water problem. Some of such schemes are Jalyukt Shivar in Maharashtra, Mukhya Mantri Jal Swavalamban Abhiyan in Rajasthan, Neeru Chettu in Andhra Pradesh, Mission Kakatiya in Telangana, Sujalam Sufalam in Gujarat, Integrated Water Resource Management and Artificial Recharge Structures Scheme in Karnataka. Other laudable initiatives by States, having a positive impact on the ground water resources include "Punjab Preservation of Subsoil Water Act, 2009" which bans early sowing of paddy nursery and transplantation of saplings and the voluntary scheme of "Pani Bachao, Paisa Kamao (PBPK)" by Government of Punjab to encourage farmers to save electricity and reduce the use of ground water. The 'Maharashtra Groundwater Development and Management Act, 2009' prohibits drilling of deep wells within the notified and non-notified areas, for agriculture or industrial usage. It also imposes total prohibition on pumping of ground water from existing deep-wells of depth 60 meters or more in notified areas.

Apart from these, there are some states which have deciphered the use of technology in the water sector. The most striking works in these domains are done by Andhra Pradesh and Maharashtra. Water Resources Department of Government of Andhra Pradesh along with the private partner Vssar Labs has developed Andhra Pradesh Water Resources Information and Management System (APWRIMS). APWRIMS is a Smart Water Solution platform targeting overarching objective of sustainable water



Jal Shakti Abhiyan
Key Intervention Areas:

Renovation of traditional and other water bodies/tanks

Watershed development

Water conservation and rainwater harvesting

Recharge and Reuse Structures

Intensive afforestation

management in the State. The APWRIMS collects data from 1,254 piezometers on real time basis across all the 13 districts of the state and correlates the information with all 15,00,000+ bore wells used for agricultural purposes in the state. Soil moisture data is also collected from 900+ locations across the state. The platform has data related to 100+ reservoirs, 40000+ Minor Irrigation tanks, 15 lakh agriculture bore wells and more than 10 lakh water conservation structures. Since its implementation, APWRIMS has benefitted more then 60 percent of the population of the state. Groundwater levels improved by 2 meter across the State, despite receiving 14 percent deficit Rainfall and the Crop planning activities have resulted in increase of about 1.85 L ha of Horticulture crops.

Government of Maharashtra has also taken an innovative step by launching the Draft Maharashtra Water Resources Regulatory Authority Water Entitlement Transfer (WET) and Wastewater Reuse Certificates (WRC) Platform Regulations, 2019. The main aim to the regulations are to encourage wastewater recycle and reuse in large water consuming industrial and urban centers that go beyond the stipulated water reuse targets set-forth in the State Water Policy and creation of a transparent water accounting process with the use of IOT metering at the water consumption, reuse and environmental discharge points with a repository of water consumption maintained under a regulated process. The regulations also envisage the creation of immutable distributed ledger-based repository of wastewater reuse certificates which can be easily marketable.

All these efforts of three tiers of Indian Federalism have resulted in marvellous changes in water and sanitation sectors of the country but still we are quite behind the targets envisioned by International community through Sustainable Development Goals (SDGs). In order to achieve these targets we need some structural reforms in present regime.

Way Forward

Growth and development are not the words which we can afford to use in describing the economy of the Nation but they have multi faceted aspects including social, political, institutional well being. While talking about growth we cannot ignore the existence of the dreadful phrases like water scarcity and climate change. In order to achieve sustainable development in the country, we have to look for solutions which may result in overhauling of the present mode of operations in water sector. Some of the changes suggested are as under:

1. Making Water as Part of Economic Development

Improved water supply and sanitation and improved water resources management boost countries' economic growth and contributes greatly to poverty eradication. The economic benefits of improved water supply and sanitation far outweigh the investment costs. Studies have revealed that the benefit-cost ratio (BCR) is significantly greater than 1, recording values in developing regions of between 4 and 32 for the water Millennium Development Goals (MDG), between 5 and 46 for the WS&S MDG and universal basic access, and between 5 and 41 for universal basic access with water disinfection at the point of use. The benefit-cost ratio for regulated piped water supply and sewer connection ranges between 2 and 12. Under base case assumptions the cost-benefit ratio is at least US$ 5 in economic benefit per US$1 invested, and even under pessimistic data assumptions, the benefits per dollar invested remained above the threshold of US$1. More importantly these are the results when non-health and non- financial benefits are not taken into account. Therefore, it makes a strongest case to increase the budget allocation to water and sanitation sector, along with agriculture, manufacturing and services sector, it should be a priority sector for investment.

2. Introduction of Water Markets at Large Scale

It is high time that along with the public good, water should be treated as the high value economic good. There is need to introduce water markets to make more productive use of water and contribute to sustainable water management. The most successful water markets are found in Murray Darling Basin of Australia where Water trading has become a vital business tool and source of additional income for many irrigators. Here water is traded on markets – within catchments, between catchments (where possible) or along river systems. This form of trading allows water users to buy and sell water in response to their individual needs. Under water markets, during the year, water is distributed by the basin authorities (or 'allocated') against entitlements in response to factors such as rainfall and storage levels. The entitlement holder can make the effective and efficient use of the water and sell rest of the quantity to the entities which is using more than their own allocation of water. When water is allocated to an entitlement holder, they are able to use it as needed - this is their business decision to make. Water markets create incentives for water to be moved to higher-value uses. The similar trading can be opted for treated waste water.

3. **Pollution Tax as the Remedy to Decrease Pollution in Water Bodies**

The cost of water security has to be distributed to different stakeholders and the entities and communities which are harming the resources have to pay for their right to being polluter. Introduction of predetermined water pollution charges for surface and groundwater use or charges for wastewater discharge could have a significant incentive effect to prevent and control pollution, maintain proper sanitation and enhance water use efficiency. The pollution tax should be regarded as the part of Extended Prouder Responsibility (EPR). Economic instruments such as pollution tax are theoretically more cost effective than direct regulation or subsidies to curb pollution, which imposes the same controls on all polluters and does not take into account the heterogeneity of abatement costs. Pollution taxes can lead to significant investment in pollution abatement and technological innovation, thereby lowering the overall cost to society of meeting environmental targets. Apart from this, these taxes or charges not only reduce the pollution and enhances the quality but also provide revenue to the government which can be used to further abatement of pollution.

4. **New strategies to support Public Private Partnership in Water Sector**

Governments can play a role in helping to attract new investors by enabling public and private actors to earn returns commensurate to the risks they take. Governments may consider providing risk mitigation to long-term investment projects where it would result in more appropriate allocation of risks and their associated returns. Guarantees play a critical role in mitigating the risks financiers face. Similarly, public money can be used to cover parts of the risks that private financiers (debt or equity) are unable to take. In the United States, state revolving funds provide examples of a sustainable infrastructure financing model. Set up with 'seed money' from US Congress, the state revolving funds capitalise a state-administered financial assistance programme to build and upgrade wastewater treatment plants and drinking water infrastructure, as well as invest in other projects to improve water quality. In doing so, the funds support a longer transition and ample flexibility to set up long-term financing to promote state and local self-sufficiency. Apart from it, the public private approach to Themes Tideway Tunnel (TTT) can also serve as the example for the operating PPP in high risk and long gestation period water sector projects.

All these structural reforms, if implemented in phase and detailed manner, can immensely benefit the existing programmes and schemes of both state and central government. They will decrease the overall dependency on the government sector and make the sector self reliant, attractive and profitable for number of investors which is a crux for growth of not only any sector but the entire country.

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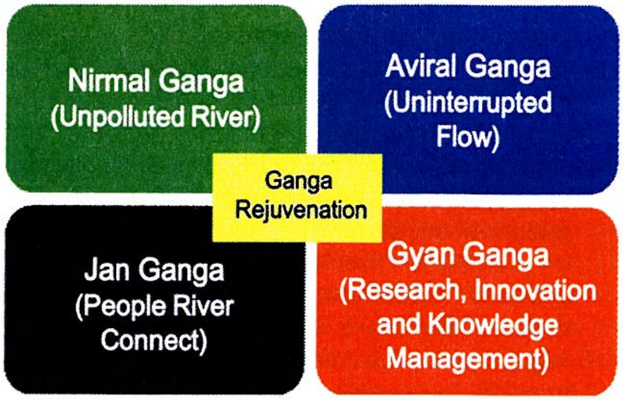
Impact and Progress of Namami Gange Programme

Rajiv Ranjan Mishra

Namami Gange programme, implemented by National Mission for Clean Ganga (NMCG) is an integrated mission for conservation of Ganga and its tributaries. A comprehensive Ganga River Basin Management Plan (GRBMP) was developed by a consortium of seven IITs. The vision is to restore the wholesomeness of the River by ensuring Aviral and Nirmal Dhara, and maintaining its geo-hydrological and ecological integrity.

River Ganga is not only the cultural and spiritual mainstay for India but also provides economic sustenance, water and food security to more than 43 percent of country's population. A part of the collective consciousness of India, Ganga can easily be considered the most revered river across the world. As a representation of India's identity and culture, it became important to restore the river to its clean and pristine glory. Considered as the lifeline for millions of people, River Ganga has been facing several challenges on one hand from pollution of river from different sources with growing urbanisation and industrial growth, and on the other from excess abstraction of water from river for agricultural, industrial and drinking needs.


Nirmal Ganga (Unpolluted River)
Aviral Ganga (Uninterrupted Flow)
Ganga Rejuvenation
Jan Ganga (People River Connect)
Gyan Ganga (Research, Innovation and Knowledge Management)

Namami Gange programme, implemented by National Mission for Clean Ganga (NMCG) is an integrated mission for conservation of Ganga and its tributaries. A comprehensive Ganga River Basin Management Plan (GRBMP) was developed by a consortium of seven IITs The vision is to restore the wholesomeness of the River by ensuring Aviral and Nirmal Dhara, and maintaining its geo-hydrological and ecological integrity. This approach differentiates this from earlier attempts. Integrated River Basin Management (IRBM) approach is followed with

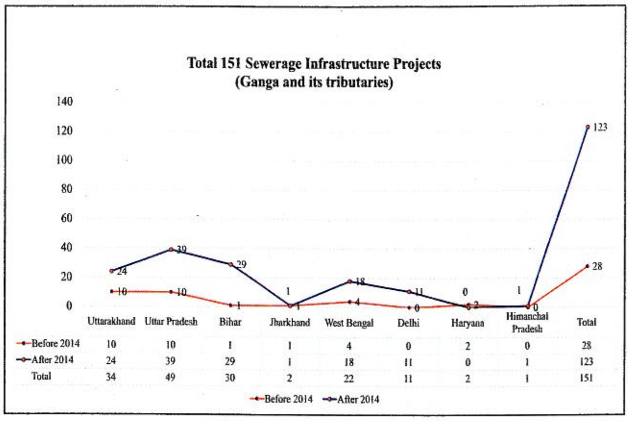
multi-sectoral and multi-agency interventions such as (I) pollution abatement (Nirmal Ganga), (II) improving ecology and flow (Aviral Ganga), (III) strengthen people river connect (Jan Ganga) and (IV) facilitate diversified research, scientific mapping, studies and evidence based policy formulation (Gyan Ganga).

The holistic approach and innovative features in policy making, project management, financial planning, sustainability of investment, scientific research, knowledge management, institutional development, basin management and planning has helped Namami Gange program to evolve as a pioneering river rejuvenation programme. A total of 315 projects have been sanctioned under Namami Gange programme at a cost of Rs. 28,854 crores. 130 projects have been completed and the remaining are in progress. Pace of execution and consequently the expenditure has increased many folds with the expenditure for FY 2019-20 being Rs. 2673.09 crores as compared to Rs. 170.99 crores in FY 2014-15.

Pollution Abatement (Nirmal Ganga)

Pollution abatement measures comprehensively tackle all sources of pollution such as municipal sewage, industrial effluents, municipal solid waste, rural sanitation, non-point sources of pollution such as agricultural runoff, open defecation, un-burnt dead bodies etc.

(a) **Sewerage Infrastructure**–The largest source of pollution in Ganga is flow of untreated municipal sewage. The goal of achieving Nirmal Dhara is impossible without building sufficient infrastructure to prevent untreated waste water entering into the river. Under Namami Gange, a total of 151 sewerage infrastructure projects have been sanctioned to create/ rehabilitate 4874 MLD treatment capacity in the Ganga basin. In addition, the mission has done conditional assessment and feasibility study of old infrastructure and taken steps to rehabilitate and upgrade, wherever feasible. The scaled up and assured funding under Namami Gange enabled comprehensive and aggressive interventions. The Figure I indicates the magnitude of scaling up under this mission with a sense of urgency to bridge the past gap between sewage generation and sewage treatment capacity. Not only the number of projects have increased from 28 to 151 but the treatment capacity has increased from 462.85 MLD by almost ten times. 51 projects have been completed. For main stem of Ganga, treatment capacity of 2100 MLD is now available against sewage generation of 2950 MLD from 97 Ganga towns.



	Uttarakhand	Uttar Pradesh	Bihar	Jharkhand	West Bengal	Delhi	Haryana	Himanchal Pradesh	Total
Before 2014	10	10	1	1	4	0	2	0	28
After 2014	24	39	29	1	18	11	0	1	123
Total	34	49	30	2	22	11	2	1	151

More than 80 major drains falling into Ganga have been intercepted and diverted to STPs –new and old.

सीसामऊ नाला
नमामि गंगे
Before
After

Stopping discharge of 140 MLD sewage from 120-year-old Sisamau Nala at Kanpur, Kasawan Nala in Haridwar and Chandreshwarnagarnala at Rishikesh are notable examples.

Most of the STPs in Uttarakhand are complete including all projects in Haridwar- Rishikesh area. Core Prayagraj is fully covered with sewerage network and STPs. Varanasi saw completion of 140 MLD Dinapur STP and 120 MLD at Goitha, and 50 MLD STP at Ramana would be ready this year. In Bihar, treatment capacity is being increased by 10 times from about 60 MLD to 650 MLD. In Jharkhand also works are almost complete and several projects in West Bengal too are making good progress.

5 MLD Chorpani Muni Ki Reti

Learning from past, 15 years long term Operation and Maintenance (O&M) has been included in project cost. Mission has introduced a PPP approach in Hybrid Annuity Mode (HAM) to sewerage infrastructure sector. Under this, 40 percent of capex is paid during construction and balance 60 percent paid in 15 year annuity along with interest with separate payment for O&M. This is to encourage performance based payments and efficient execution. Further, the approach of 'One City-One Operator' has been adapted by integrating the construction of new STPs , rehabilitation of old STPs, if needed and O&M of all for 15 years to improve accountability and governance with city wide contract. This helps meet better performance standards, attracts sound players due to bigger size, opportunity to explore the possibility of reuse of treated waste water and ultimately better service.

Wastewater is one of the most under-exploited resources. It is actually a valuable resource from which energy, water, organics, phosphates, nitrogen, and other resources can be extracted. NMCG is actively pursuing the development of a model policy framework for re-use of treated waste water. In Mathura, 20 MLD treated waste water has been tied up for use in Mathura refinery, which will meet the costs of TTP, O&M and pay for water. Similarly, efforts are being made to tie up with thermal power plants as per power tariff policy. These are also being used for agricultural purposes and states like Bihar have mandated it. Haryana is developing a state policy. Specific arrangements for discharge lines for agriculture use are being made in all new projects like Ramana at Varanasi or Jagjeetpur in Haridwar. The circular economy principles can help turning sanitation a sustainable option.

(b) **Faecal Sludge Management** - While improving sewerage systems, the constraints have also been understood from the way our cities and towns are. Faecal sludge and Septage treatment is good option in developing a mix of solutions with centralised and decentralised STPs. While working with several institutions from National Faecal Sludge and septage management alliance such as CSE, ASCI; capacity building of States and ULBs is being done. NMCG has adopted co-treatment in its all under construction STPs. Such practice is already undergoing in important towns such as Haridwar, Kanpur, Prayagraj, Lucknow etc.

(c) **Industrial Pollution**– To control the industrial pollution in Ganga, all the Grossly Polluting Industries (GPIs) were identified and annual inspection undertaken by independent expert institutions such as IITs, NEERI, NITs leading to improved compliance by industries. A Common Effluent Treatment Plant (CETP) is under construction for Jajmau Tannery Cluster, Kanpur, addressing a very long standing problem. Upgradation of existing CETPs has been undertaken for tannery and textile clusters. Industry specific charters were developed to promote greener technology, reduce effluent generation and reuse/recycle which led to improvement in several industries. Black liquor discharge in paper & pulp industries has been stopped. Online continuous effluent monitoring system has been installed. Similar approach is being extended to tributaries.

(d) Solid Waste Management– Solid Waste is the most visible form of pollution. The mission has directed its focus on solid waste on ghats and in the vicinity of the river with regular cleaning of river banks, installing screens/filter to trap solid waste, ban on single-use plastics and periodical third-party inspections. Trash skimmers have been installed at important places for surface cleaning. Projects for ghat cleaning have been taken up at Haridwar, Kanpur-Bithoor, Mathura-Vrindavan, Prayagraj and Varanasi.

(e) Rural Sanitation–NMCG facilitated construction of around 11 lakh household toilets in 4465 identified Ganga bank villages. They were declared open defecation free (ODF) early and solid, liquid waste management in Ganga Grams is priority in SBM Grameen.

(f) Water Quality - Central Pollution Control Board monitors water quality of River Ganga through 97 manual stations. For the first time in India, Real Time Water Quality Monitoring has been introduced with 36 stations set up along Ganga with 40 more in pipeline. Community monitoring is also promoted. The impact of the program is reflected in the improving trend of water quality. The important parameter of Dissolved Oxygen (DO) to be more than 5mg/liter is now met throughout the river length. There is improvement in meeting Biological Oxygen demand (BOD), to be less than 3mg/liter at several stations. The Kumbh at Prayagraj in 2019 was witness to improved water quality and cleanliness.

Ecology and Flow (Aviral Ganga)

Drastic reduction in flow of river has a huge ecological cost with long term adverse Impact. A river is not a river without good flow. NMCG is working on improving flow and overall ecology through a mix of supply as well as demand side management of water.

(a) Ecological Flow-For the first time, ecological flow was notified for River Ganga in October 2018, formally establishing the right of river over its own water with far reaching implications for river health. This has become a major component of river rejuvenation study and studies are ongoing for other rivers like Yamuna, Ramganga etc.

(b) Wetland Conservation –Wetlands are important for Nirmalta, Aviralta and also for economy, eco-tourism, ground water recharge and supporting biodiversity. Mission is working for their protection and conservation and integrating to basin level. Toolkits for urban wetlands protection are also being developed with special attention to flood plain wetlands. 226 wetlands within 10 kms from Ganga in 27 districts in UP have been taken up for development of an integrated management plan.

(c) Afforestation: For the first time, mission got a scientific plan for afforestation along entire length of Ganga developed by Forest Research Institute and started its implementation. Natural, urban and agricultural riverscapes are covered in this plan. Taking it as a model approach, MoEF&CC is extending similar approach for 13 more rivers in the country.

(d) Biodiversity Conservation - A comprehensive project is under implementation with Wildlife Institute of India (WII) to map biodiversity hotspot for the entire length of Ganga and scientific improvement of habitat, species. NMCG spearheaded campaign for conservation of Gangetic Dolphin, the National Aquatic Animal leading to announcement of Project Dolphin. A comprehensive scientific program for fisheries resource and their conservation has been taken up in association with Central Inland Fisheries Research Institute (CIFRI).

(e) Sustainable Agriculture: NMCG promotes this through organic farming, eco agriculture and medicinal plantation. Organic farming corridor along Ganga has been proposed at the National Ganga Council meeting for sustainable development. Promotion of cultivation of medicinal plants has been taken up in 10 districts of UP. Ministry of Ayush and National Medicinal Plantation Board is supporting development of herbal corridor along Ganga. Improving water use efficiency in agriculture is aimed through awareness campaign, promoting micro-irrigation, policy interventions for cropping pattern etc.

(f) **Small River Rejuvenation**: A GIS based district wise inventory of small rivers is being created along with district level interventions with convergence with MGNREGA. Small rivers rejuvenation is key to Aviral and Nirmal Ganga.

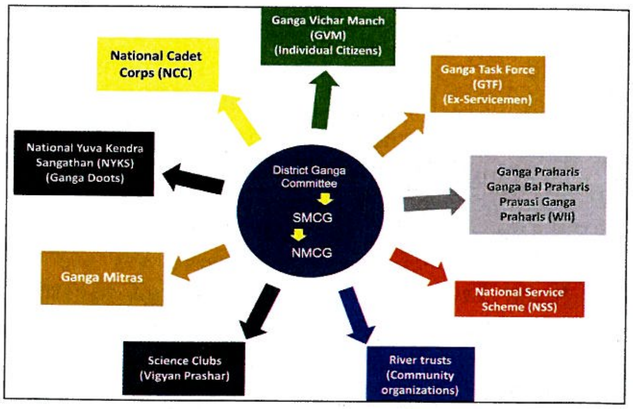
People River Connect (Jan Ganga)

River Rejuvenation is a continuous process which needs involvement of the people. The people river connect needs to be established so that they feel the need to join these efforts and are committed to maintaining her splendour and cleanliness. Namami Gange mission accords prime importance to this and is taking several steps for making it a people's movement.

(a) **Ghat and Crematoria**–They play a crucial part in people's relation with river Ganga and hence attempt is made to improve amenities and sanitation. 138 Ghats and 38 Crematoria have already been constructed with River Front development at Patna and Haridwar, making them important public space.

(b) **Jan Bhagidari**–Community and stakeholder groups have been developed such as Ganga Vichar Manch, Ganga Praharis, NYK Ganga Doots, Ganga Mitras, Ganga Task Force with ex-serviceman, NCC, NSS etc. They undertake several activities continuously to connect people.

(c) **Ganga Amantran Abhiyan**–This was largest social outreach program through adventure sports connecting people from Deoprayag to Ganga Sagar last year through 35-daylong rafting expedition. A similar successful expedition up to Patna from Haridwar was led by Mountaineer Bachendri Pal in 2018.


Ganga Vichar Manch (GVM) (Individual Citizens)
National Cadet Corps (NCC)
Ganga Task Force (GTF) (Ex-Servicemen)
National Yuva Kendra Sangathan (NYKS) (Ganga Doots)
District Ganga Committee
SMCG
NMCG
Ganga Praharis
Ganga Bal Praharis
Pravasi Ganga Praharis (WII)
Ganga Mitras
National Service Scheme (NSS)
Science Clubs (Vigyan Prashar)
River trusts (Community organizations)

(d) NMCG regularly conducts several activities to connect youth and others such as 'Great Ganga Run', a marathon which was attended by around 20,000 people and regular Cleanathons on river banks.

(e) **Ganga Quest:** During lockdown, an innovative online national quiz on Ganga to connect school/college students drew overwhelming response with 11.5 lakh participants. Ganga Utsavs, Ganga Bal Mela, Cultural programmes and other activities are organised suitably connecting different group of people.

(f) **Clean Ganga Fund** is another innovative step to create an avenue for people and corporates to donate and take up specific projects for this national cause.

Research, Policy and Knowledge Management (Gyan Ganga)

Mission has given priority to evidence based policy decisions and to get authentic data and information backed by scientific research. It started with a comprehensive basin management plan prepared by consortium of IITs followed by setting up of a Centre for Ganga Management and Studies (cGanga) at IIT, Kanpur. Some of the initiatives are outlined.

(a) **LIDAR Mapping**–A landmark project with Survey of India is progressing for Generation of high-resolution DEM and GIS ready database for 10 kms on both sides of Ganga using LiDAR which will for the first time provide data on drainage, flood plains etc. This will enable better project formulation, monitoring, regulation and conservation.

(b) **Microbial Diversity Mapping** - Namami Gange in partnership with CSIR-NEERI is studying Water Quality and Sediment Analysis to understand the Special Property of Ganga River and also impact of human intervention on microbial diversity.

(c) **Cultural mapping** of entire length of Ganga for natural, built and intangible heritage, taken up through INTACH, has the potential for protection of rich heritage and development of tourism and traditional livelihood opportunities.

(d) **Climate Scenario Mapping**–Partnering with IIT, Delhi to map out high resolution long term climate scenarios to improve understanding and scientifically estimate impact of climate change on water resources in the Indo-Gangetic Plain for basin-scale water resources management

(e) **Spring Rejuvenation**-Namami Gange is leading spring rejuvenation projects with IIT, Roorkee and Survey of India to assess the impact of land use-land cover change or impact of natural or anthropogenic precipitation variability and mapping of sources of springs for taking up their rejuvenation. It is likely to be base for a major program for Himalayan Spring Rejuvenation by NITI Aayog.

(f) A project in collaboration with CGWB and National Geophysical Research Institute (NGRI) for aquifer mapping has been started with focus on paleo-channels in parts of Ganga-Yamuna doab in Kausambi-Kanpur stretch. This will help in planning for aquifer recharge with potential for increasing the flow of river Ganga during lean season.

(g) **New Paradigm of Planning for River Cities –** Project to mainstream river health in urban planning and develop framework for Integrated Urban Water Management (IUWM) has been initiated with National Institute of Urban affairs. Innovative urban river management plan (URMP) framework is being developed with a template for Kanpur.

(h) Namami Gange is collaborating with different international organisations like India-EU water partnership and German collaboration for the technology and knowledge transfer for River Basin management, E-flow assessment and Policy for Reuse of treated wastewater.

(i) Arth Ganga- Namami Gange is now leading to the development of Arth Ganga model linking economic development of Ganga Basin with ecological improvement and Ganga Rejuvenation.

The nature has capacity to rejuvenate itself if human interventions are controlled and the same was witnessed during the national lockdown period. The lesson to be learnt is that we need to have a better enforcement and also keep working for behavioural change as everything cannot be achieved by regulatory approach only. People's participation is key to transformation. Sustainable development increasingly depends upon successful management of urban growth and water resources. Ganga Rejuvenation is critical for implementation of 2030 agenda of Sustainable Development Goals (SDGs). Namami Gange has developed a framework for river rejuvenation which is now being followed for several rivers beyond Ganga basin.

Ganga is in the heart of millions who have been drawn to it since time immemorial. In essence, Ganga represents all rivers and several river streams are also named after Ganga. It has always been and will remain a great unifying force. Its rejuvenation requires the efforts of all and its rejuvenation is needed by all.

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Sustaining ODF India

Chiranjibi Tiwari

In 2019, India achieved a historical milestone when it declared the country as open defecation free (ODF). Swachh Bharat Mission Gramin (SBM-G) Phase II now seeks to both build upon the achievements and sustain them, by investing in ODF-Sustainability activities such as improved hygiene practices, solid and liquid waste management, and operation and maintenance of infrastructures. In Uttar Pradesh, India's most populous state, household sanitation coverage grew exponentially, leading to an increased need for managing the next steps on the sanitation chain. The government seeks to continue mobilising Panchayati Raj Institutions (PRIs), as the vehicles for encouraging community engagement. Finally, media in its role as the fourth pillar of democracy will be critical in ensuring that positive outcomes are amplified and maintaining transparency and accountability.

WORLD
TOILET
DAY

(Image Credit: UNICEF India)

Under the Swachh Bharat Mission (Gramin), about 10.28 crore households constructed individual household latrines (IHHL) during 2014-2019; making more than 600,000 villages across the country free from open defecation (ODF). In the state of Uttar Pradesh alone, about 1.96 crore households got access to IHHL under the SBM(G). Yet another highly ambitious sanitation programme, SBM(G) phase II has been launched with the objective of 'leaving-no-one-behind' without access to toilet, while supporting Gram Panchyats (GPs) in implementing solid and liquid waste management (SLWM) initiatives including bio-organic waste, grey water, faecal sludge and plastic waste. Another important objective of the SBM(G) phase II (SBM(G) II, hereafter) is to sustain ODF status of the villages, if needed through retro-fitting of defunt or malfunctional toilets and sustained behaviour change communication. The objectives of SBM(G) II are critical elements of the Sustainable Development Goals (SDGs) on sanitation; target of SDG Goal 6 is, "by 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations".

The Government of India intends to mobilise and empower almost 260,000 Gram Panchyats (GPs) across the country to be the stewards of the SBM(G)II strategy so that they emerge as the drivers of achieving universal access to safely managed sanitation, and sustaining ODF India. However, SBM(G)II interventions are more complex than the interventions of SBM(G) phase I, which focussed on construction of twin-pit IHHL and behaviour change communication through community led total sanitation approach. SBM(G) II needs different types of contextual technical solutions for retrofitting, as well as for solid and liquid waste management. Further, solid waste management (SWM) involves series of processes commonly categorised as: segregation, collection, transportation, treatment, recycle or reuse (SWM chain). To have sustained operation, some committed sanitation workers are required to ensure that all the steps are operated and closely monitored. Sustained engagement of community groups is crucial; this implies a sustained and a critical role for media.

This article highlights the key success factors of SBM(G) Phase I, scope and focus of SBM(G) II and discusses the critical role of Panchayati Raj Institutions (PRIs) and Media in sustaining ODF and achieving safely managed sanitation for all in India.

SBM(G) Phase I (2014-2019): Success Factors

The successful implementation of SBM (G) was driven by several factors. Among others political leadership, public finance, partnerships and people's participation (4Ps) are cited to be at the center of its success.

a) Political Leadership

The SBM (G) was part of the Prime Minister's vision of making India ODF. In states such as UP, the Chief Ministers provided abled leadership of the SBM(G); close monitoring from the top level on a regular basis gave impetus to the planning and implementation of SBM(G) at the district and village levels.

b) Public Finance

A consistent and massive scale, behaviour change communication and an incentive of Rs 12,000 per poor household for toilet construction were the critical aspects of SBM(G) strategy. The Centre and state governments have spent estimated US$ 24 billions on SBM(G).

c) Partnerships

To achieve highly ambitious target, range of strategic partnerships were mobilised, amongst but not limited to the government ministries, development partners, media and influencers at all level.

d) Peoples Participation and Community Mobilisation

Design of SBM(G) was informed by the lessons of previous sanitation programmes that changing a socially accepted practice

Role of Nigrani Samiti

Sixty-year-old Mangra Devi, along with eleven other women of village Ramchandrapur are the proud members of the village's Nigrani Samiti whose efforts have ensured an Open Defecation Free (ODF) status for the village.

(Image Credit: UNICEF India)

The women group has been on their toes, taking rounds of the village and urging people not to defecate in the open for the last couple of years. They start the community patrolling at 4 am to deter people from defecating in open and explain to them the importance of toilets. The women have also helped people with the formalities for getting government incentive for toilet construction.

Mangra Devi, who is the head of the nigrani samiti says, "when I came to the village after my marriage, there were no toilets and women faced a lot of inconvenience. But I never wanted my daughters-in-law to face the same problem. So, we got a toilet constructed at our home."

The leadership of Mangra Devi has ensured a toilet, not just for her four daughters-in-law, but for all other women of the village. The villagers unanimously agree that ODF status has ensured cleaner and healthier surroundings.

of open defecation, would require focus on social and behaviour change communication, going beyond toilet construction. Community members were mobilised as motivators, nigrani samitis (vigilante/village committees), local champions, rani mistris (queen masons) etc. making SBM(G) a truly peoples movement rather than a government programme. School children actively participated as local change agents. Story of Mangra Devi of Mirzapur district in the state of Uttar Pradesh (UP) amplifies the critical role played by the local Nigrani Samitis in making sanitation a peoples movement.

In addition to the above four Ps, the additional factors are being cited below.

e) Strong Capacity Development Support from Partners

Making the SBM(G) a peoples movement required SBM(G) team with skills of participatory planning, community mobilisation, stakeholders coordination, and accountability system. Development partners such as UNICEF, World Bank, Tata Trusts and others supported the capacity development of SBM(G) team, immensely contributing towards desired focus on behaviour change communication. The story of Rita and Sadhana from Shrawasti district in the state of UP demonstrates how capacity building support by UNICEF has enabled and empowered adolescent girls to be the champions of sanitation movement in UP.

f) Critical Role of Media

Mobilising stakeholders ranging from faith leaders, political cadres, bureaucrats and communities at large was made possible through active engagement of media. Media supported the programme by amplifying success stories, motivating sanitation champion girls and women, and connecting to the influencers so that a consistent and sustained messaging on the importance of constructing and using toilets

Determined Girls Transform a village in Shrawasti

18 year old Rita and 13 year old Sadhana are two determined girls who led the sanitation crusade in a remote village - Badhani in Shrawasti district that borders Nepal.

(Image Credit: UNICEF India)

Rita and Sadhana had attended a community led total sanitation (CLTS) training supported by UNICEF in 2018 when they realised the importance of toilets for a healthy life. A student of class 12, Rita says, “For the first time I understood how open defecation impacted our health. It was soon after the training that we spoke with the other children in our village along and together we decided to start a crusade to make our village open defecation free”. This young brigade of irresistible child persuaders go house-to-house explaining the harmful effects of open defecation. They wake up early morning and move around in bright orange and yellow jackets with a whistle. The aim is to check people going for open defecation and explain the health hazards of this practice.

Supporting the children’s initiative is the village head, Dilbahar Khan who lends his voice to the ODF crusade. Change in behaviour is also evident. “Now, we do not stay overnight in any relative’s house that does not have a toilet. We discourage all our relatives who have been defecating in the open”, says a converted Lallu, Sadhana’s father.

Lakhpata, Sadhana’s grandmother thanks her granddaughter for her perseverance and says, “I had never heard about a ‘toilet’ earlier and had always been going to the fields...now toilets at home have made life so easy, especially during monsoons.”

reached to everyone, in turn inspiring them to become the champions themselves. In fact, media has played central role in communicating messages to a range of audiences. UNICEF supported the Government of UP in effectively engaging with media.

unicef
Swachh Bharat Mission (Gramin), Uttar Pradesh
MEDIA WORKSHOP

(Image Credit: UNICEF India)

In the states such as UP, where Panchayati Raj Department was leading the implementation of SBM(G), role of Gram Panchayats was extremely crucial. GP Pradhans provided leadership in all aspects of planning, community mobilisation and monitoring of SBM(G).

SBM (G)-II scope and focus:

The second phase of sanitation: SBM(G) II has been designed and launched with an objective of sustaining the ODF communities and ensuring that sanitation practice in India becomes at par with the growing economy. A budget of Rs 140,881 crores has been approved for the five years (2019/20–2024/25) programme period. Two key components of the programme are highlighted below.

a) Sustaining the ODF

To sustain the ODF gains, SBM(G)II intends to ensure that all remaning households get access to toilets, existing toilets are retro-fitted to meet safety/technical standards, community sanitary complexes are built for an easy access to toilets for everyone.

b) Sustinable Solid and Liquid Waste Management

The solid and liquid waste management component focuses on: a) bio-organic waste management, b) plastic waste management, c) liquid waste management, and d) faecal sludge management (FSM). Further, a business approach to planning and management is recommended, with mechanism of revenue generation for operation and maintenance (O&M) at the local level. For the FSM, the SBM(G) II guidelines suggest districts to prepare District FSM Plan, outlining the technology to be adopted and arrangement for sustainable O&M.

The programme highlights the important role of Panchayati Raj Institutions (PRIs), and media in achieving and sustaining country-wide safe sanitation practices.

c) Role of Panchayati Raj Institutions (PRIs)

SBM(G)II guidelines have explicitly recognised the critical role of PRIs, aligning to the 73rd Amendment Act–1992 of the Constitution of India. This constitutional provision empowers PRIs as critical institutions in the planning and implementation of SBM(G)II; the provision for the use of 15th Finance Commission grants to/ by local bodies to fund SBM(G)-II initiatives through convergence at the local level, further strengthens the mandate of the PRIs. Aligned to this mandate, SBM (G)II recommends establishment of a District SBM Committee, under the Chair of the District Panchayat (Zila Parishad) with the Co-chair of District Collector/Magistrate. Similarly, MPs/MLAs are recommended as the members of this committee at the district level. This institutional arrangement is expected to provide a platform for elected representatives/leadership at the district level, aligning to the democratic principles enshrined in the Constitution of India. It will further provide an accountability framework for the elected representatives, to be held accountable to their electorates. Chairpersons of the District Panchayat have obligations to ensure that each and every citizen within their districts has access to safe WASH services, and if they fail in delivering this, they would be voted out in the successive elections.

d) IEC and Role of Media

SBM(G)-II recognises the critical role of information, education and communication (IEC); 5 percent of budget (Rs.7,040 crores) is earmarked for range of social and behaviour-change communication strategies and related capacity development work. Use of innovative communication strategies including inter-personal communication, mass-media, creatives, use of social media, regular felicitation of champions, leveraging of celebrities and mobilisation of influencers such as faith leaders, local leaders, schools, Anganwadi centers, community self-help groups are considered important. Demand generation and local community ownership is critical to achieve sustained behaviour change towards safe sanitation practices.

Framework for Empowering the PRIs

As SBM(G)II strategy has highlighted, the role of PRIs is critical in achieving safely managed sanitation for all in India. Section below provides some food for thought on how the role of PRIs could be strengthened/materialised.

a) Making sanitation a part of the GPDP framework

As envisaged in the SBG(G)II guidelines and the Constitution of India, GPs are required to prepare inclusive Gram Panchayat Development Plans (GPDPs) in participatory way. It is required that sanitation SDGs are part of the GPDP plan, so that they are implemented with priority and ODF is sustained. Different states are at different levels in terms of the capacity of GPs to plan and implement inclusive GPDPs. Their institutional capacity especially in the areas of data/ evidence based planning, ensuring meaningful participation of women, girls and marginalised groups, monitoring of GPDP implementation, and knowledge management needs to be strengthened.

b) Engagement of Block and District Panchayats

As articulated in the Constitution of India, there exist a three-tier structure of Panchayati Raj system: Gram Panchayat (GP), intermediate or block (Panchayat Samiti — PS) and district (Zilla Parishad — ZP) levels. SBM(G)II guidelines have clearly mentioned the role of the GPs and the District Panchayats (DPs). However, the role of Panchayat Samiti at Block level is not mentioned exclusively. Aligning to the democratic principles enshrined in the constitution, elected representatives at the Block level could also be made the chairpersons of the Block level sanitation committee. Further, the DPs and Block Panchayats (PSs) should have critical role in strengthening and supporting GPs within their jurisdiction, in planning and implementation of the sanitation plan. In addition, the PRIs can be the main vehicle to ensure sustained engagement of Safaikarmis, Swachhagrahis and Nigrani Samitis.

c) Accountability framework for PRIs

Accountability of democratic institutions is about their effective participation in planning and monitoring of the development work, so that they can be held accountable to their constituencies. It is recommended that the following consideration be at the centre of the PRIs role and accountability framework.

- District Panchayats: Lead the district level planning process, have mandate of endorsing the plan, quarterly monitoring of progress, and mobilisation of Block and GP level teams.
- Block Panchayats (PS): Support GPs in implementation of their GPDP linked sanitation plan and ensure robust monitoring of the outcomes at the Block level.
- GPs: Ensure preparation of inclusive GPDPs and implement the SBM(G)II programme as part of the GPDPs.

d) Engagement of Media As a Tool for Downward Accountability

Role of media is crucial; it could be threefold: i) sharing information on various aspects of SBM(G) II and entitlements of communities, ii) supporting PRIs by sharing emerging best practices from across the country for replication with or without adaptions, and iii) identification of gaps and delays in programme implementation and sharing the same with wider public so that the PRIs are held accounatable to their citizens. By playing these roles effectively, media can act as the agency of the marginalised communities, adolescent girls and minority groups. Achieving safely managed sanitation for all, requires sustained engagement of community groups as well as PRIs and media becomes critical in this process.

Conclusions and Way Forward

The SBM(G)II provides a sound framework to ensure sustainability of ODF communities across India and to ensure that country's sanitation practice becomes at par with the economic development. Role of PRIs and media becomes crucial in achieving this.

a) Accountability framework for PRIs

The SBM(G) II provides a critical role to the PRIs in planning and implementation of SBM(G), aligning to the democratic principles enshrined in the 73rd Amendment to the Constitution of

India. As the duty bearers, PRIs need a clearly defined institutional platform to be able to deliver on their mandates. Recommendations to have a district level SBM(G) Committee chaired by the Chairperson of the District Panchayat, and earmarking of the 15th Finance Commission funds for SBM(G) implementation are very much welcome steps. The SBG(G) II guidelines could further elaborate the role of PRIs at all three levels so that they can be held accountable to robust planning and delivery of safe sanitation services within their areas of jurisdictions.

b) Critical role of Media

As in any democratic processes, role of media is critical in SBM(G). Media can be the agency of the marginalised communities, and can promote transparency by communicating on the citizen's entitlements, avenues and good practices. Media can further strengthen democratic processes concerning planning and delivery of safe sanitation, as aimed under the SBM(G) II.

c) Partnerships and Capacity Building of PRIs and Communities

Capacity building in both technical aspect as well as institutional, social, environmental, financial and behavioural aspect of SBM(G)II, needs to be at the center of the planning and implementation of programme. Development partners, civil society, private sector and academic institutions need to be considered and engaged at all levels through development of multi-stakeholder partnerships tailored to the local contexts.

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Har Ghar Jal

Tasneem Q. Khan and Vishnu Sharma

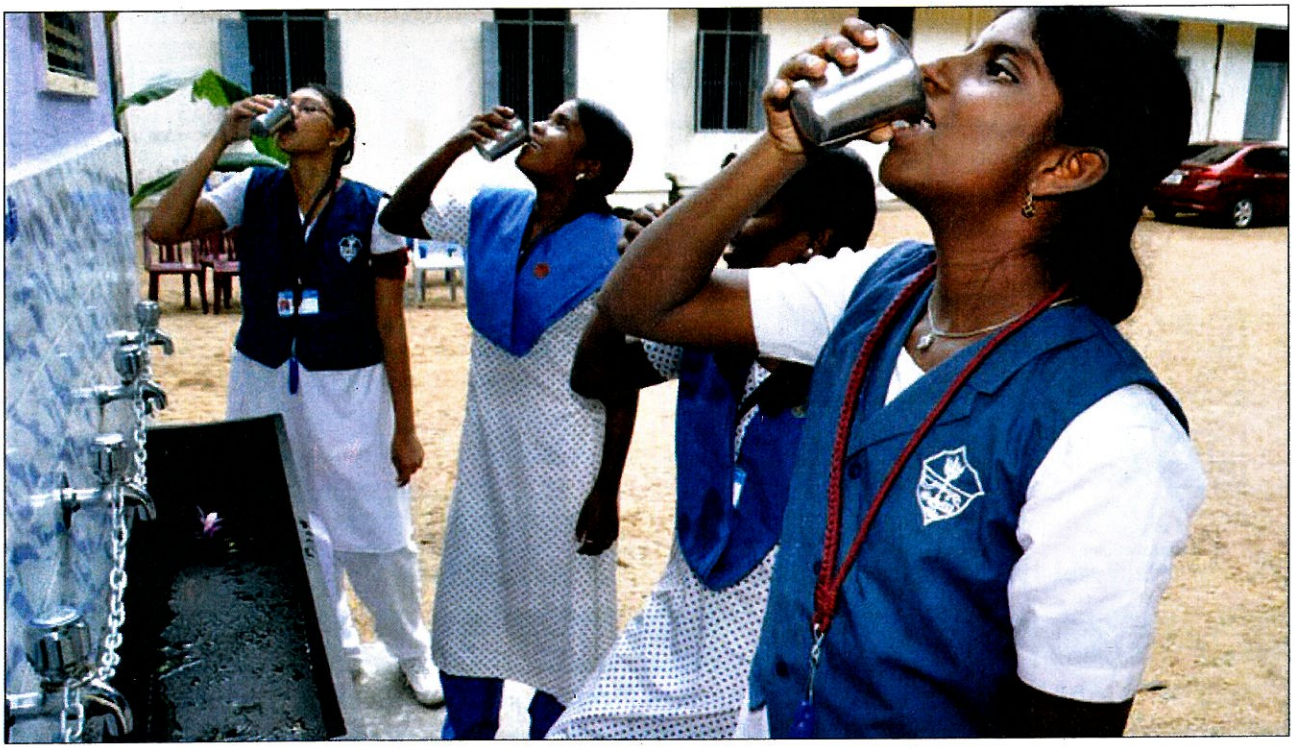
Importance of water and its conversation for the well being of human beings as well our cohabitants in earth cannot be highlighted enough. The government has been working on water issues on a war footing. It sees management of water in a holistic manner. The Ministry of Jal Shakti, created in 2019, has integrated various departments and ministries dealing with water resources and water supply under one roof, with the aim to assure "availability of potable water for all."

According to a 2018 National Institute for Transforming India, the NITI Aayog report, India is facing the "worst water crisis in its history" which is threatening "millions of lives and livelihoods". The report paints a gory picture of our water crisis wherein around sixty crore Indians "face high to extreme water stress and about two lakh people die every year due to inadequate access to safe water." It says that the crisis is only going to get worse and by 2030 the country's water demand is projected to be twice the available supply. This may further create severe water scarcity for crores of people and may lead to an approximate loss of 6 percent in its GDP point then.

India has more than 18 percent of the world's population but it only has four percent of world's renewable water resources of which farmers consume almost 90 percent of the available groundwater.

The National Sample Survey Office's (NSSO) 76th round, July-December 2018, informs that one in every five (21.4 percent) households in India has piped drinking water connections. In rural India, just 11.3 percent households receive potable water directly at homes whereas about 42.9 percent of the households in the rural areas use hand pump as the principal source of drinking water. In urban India, 40.9 percent households receive piped water into dwelling as the principal source of drinking water.

Importance of water and its conservation for the well being of human beings as well our cohabitants in earth cannot be highlighted enough. Mentioned as one of the five elements in vedic literature, water is 'aapah' in Sanskrit. As is written in the Rigveda, an ancient Hindu book, "May the water available from the skies as rain, the water available in the culverts/canals, water flowing in streams and rivers and the water flowing towards the ocean be instrumental in increasing my happiness." There are hymns praising water and



praying for it. Human civilizations came up at river banks, this further emphasises the importance of water and the need of it for furtherance of human progress on earth.

All the other great religions of the world including Judaism, Buddhism, Christianity, Islam and Sikhism stress on the importance of water. According to Islam, water belongs equally to all and falls down as God's mercy as rain leading to giving new life to dead land. Sikhism stresses on water being a community resource and directs to respect water, earth and wood for God is found in these elements. Also, all these great religions have long list of rituals associated with water.

Water and Government Initiatives

The Government has been working on water issues on a war footing. It sees management of water in a holistic manner. The government has created a new ministry—the Ministry of Jal Shakti in 2019, in the beginning of its second term, to integrate various departments and ministries dealing with water resources and water supply under one roof. The key goal of the newly created ministry is to assure "availability of potable water for all." Accordingly, Prime Minister Shri Narendra Modi announced Jal Jeevan Mission-Har Ghar Jal from Delhi's Red Fort on 15th August 2019. The scheme promises piped water in every rural household by 2024 and aims to provide 55 litre per capita per day drinking water, as prescribed, regularly, to every household through a functional household tap.

Emphasising on the importance of water for all citizens, Shri Modi said,

"It is over 70 years since Independence. All governments have done a lot of work in their own way. Every government, irrespective of the party, be it the central or the state, has tried in its own way. But still it is a fact that today almost half of the houses in India do not have drinking water. People have to struggle to get drinking water. Mothers and sisters have to travel 2, 3, 5 km carrying the load of water on their heads. A large part of their lives is spent in struggling for water. Therefore, this government has decided to emphasise upon a special task and that is - how to ensure availability of water in every house."

In the same speech Shri Modi announced the Jal Jeevan Misson saying, "how does every house get water, pure drinking water? And so I declare from the Red Fort today that in the days to come, we will take forward the 'Jal-Jeevan' Mission."

He said, the mission will be implemented in partnership of Central and the State Governments and more than 3.5 Lakh Crores rupees will be spent on this mission in the coming years. Also, its aim is to provide functional household tap connection to every household by 2024.

In the speech, Shri Modi also remembered the words of Saint Thiruvalluvar who had said *NeerIndri Amiyadhu Ulganein* which means "if water starts disappearing, then nature's processes get disrupted and eventually come to an end. This initiates the process of total destruction."

The Government of India understands that management of water resource is of highest importance for India as it is rising to claim its place in world's economy and its importance for uninterrupted economic advancement can never be highlighted enough. According to the Jal Shakti Ministry's data, by 2030 Indian industries will be using four times more water than they use today, hence it is pertinent that the country takes its water management issue seriously.

Moving forward, the government made an outlay of 3.60 Lakh Crore rupees for this mission with Central share of 2.08 Lakh Crore rupees and the states will bear 1.52 Lakh Crore rupees of the total budget announcement for the scheme. According to Jal Shakti Ministry, a country wide revalidation exercise of households and status of tap water supply was taken up and it was found that as on 1st April 2019 of 18.93 Crore rural households in the country, 3.23 Crore households have tap connections and the rest 15.70 Crore households will be provided with tap connections.

Salient or Key Features of the Mission

In a report published on the occasion of completion of one year of the Jal Shakti Ministry it has highlighted important features of the mission as:

a) Emphasis is on 'service delivery' rather creating infrastructure; Gram Panchayat and/or its subcommittee, i.e. Village Water & Sanitation Committee (VWSC) / Paani Samiti or user group to plan, implement, manage, operate and maintain their own water supply system.

b) SHGs/community-based organisations/NGOs involved as Implementation Support Agencies to enhance community's capacity to implement the mission making JJM, truly a 'people's movement'.

c) Safe water to be ensured in water quality affected areas on priority. Other priority areas are water scarce areas, aspirational districts, SC/ ST majority villages/habitations, villages under Sansad Adarsh Gram Yojana (SAGY) and PVTG habitations.

d) Villagers to be skilled as masons, plumbers, electricians, fitters, etc. so as to ensure long-term maintenance of water supply systems.

e) In order to instill the 'sense of ownership' among the community, communities to contribute five percent of the capital cost in cash/kind /labour in villages of hilly and forested areas/NE and Himalayan States and villages having more than fifty per cent SC and/or ST population; for other areas, the community contribution is ten percent of the capital cost.

f) GPs/ VWSCs/Paani Samitis to be provided ten percent of the 'in-village infrastructure' cost as performance incentive after completion of the scheme and successful demonstration of O&M.

g) Strengthening and setting-up of water quality testing laboratories at State, district and block levels to monitor quality of water supply and open those to public.

h) Five persons, preferably women, in every village to be trained to check quality of water supply using simple ready-to-use test kits.

i) Public Financial Management System is mandatory to be used for all financial transactions to ensure transparency as well as tracking of funds.

j) Ministry of Jal Shakti has set up Integrated Management Information System (IMIS) for monitoring of physical and financial progress and the same is linked with dash board.

k) Rashtriya Jal Jeevan Kosh (RJJK) has been set up to mobilise and accept contributions / donations from various sources towards achieving the goal of JJM.

The same report also informs about the progress the mission has made since its inception. According to it, in 2019-20, Rs. 10,000.66 Crore was provided and during 2020-21, provision of Rs. 23,500 Crore has been made. And, it was in 2019-20 that 84.84 Lakh households were provided with tap connections. The report further informs that daily one lakh families are being given tap connections. Further, in 2019-20, 71 lakh people in Arsenic contaminated areas and 5.3 lakh people in Fluoride contaminated areas, were provided with safe drinking water.

Another highlight of this report is that as a futuristic approach states are to pilot 'Sensor based IoT solution' to monitor regularity of water supply, quantity and quality of water. This would help enhance decision making and performance of water supply utilities.

Mission Under Lockdown

It is like a cliché to say "the show must go on." Following this maxim, the government has not let the COVID-19 pandemic and the subsequent lockdown to hamper the Jal Jeevan Mission. According to the Ministry of Jal Shakti, in the current year, so far the Central Government has made 8050 Crore rupees available to the states for implementation of the mission. In the first quarter of 2020-21, 19 lakh tap connections have been provided in villages across the country. This has been made possible because of concerted efforts of the states despite adverse working conditions due to COVID-19 pandemic.

According to the ministry, during the lockdown months, National Jal Jeevan Mission of the Department of Drinking Water and Sanitation is constantly interacting with States/UTs through Video Conferencing to finalise the roadmap as well as to review the progress of implementation. During this period, the Annual Action Plans of States to provide household tap connections during 2020-21 was approved with a focus on monthly physical and expenditure plan.

Further, the National Jal Jeevan Mission is working closely with the States to accomplish the task i.e. 'Har Ghar Jal' in mission mode and through time-bound manner. The states are laying emphasis on retrofitting and augmentation of existing water supply schemes to provide household tap connections to the remaining households of the villages belonging to poor and marginalized people. The states have been asked to start this work in 'campaign mode' as this would provide household tap connections within minimum possible time since the basic infrastructure is already in place and it is the household connections which needs to be given. The states have not only prepared the roadmap to provide household connections for this year but also, a detailed plan has been put in place for complete coverage of all the villages by setting a target for themselves.

When the whole country is fighting the COVID-19 pandemic, the Central Government is making all efforts for 'provision of safe drinking water in rural areas' by providing tap connections in rural households, so that people can get water in their premises so as to avoid gathering at public stand-posts to fetch water and this has also helped provide employment to locals as well as the returnees, which in turn boosts rural economy.

The ministry, following the principles of Mahatma Gandhi ji's 'Gram Swaraj', under Jal Jeevan Mission aims to involve the local village community/Gram Panchayats or sub-committee i.e. Village Water and Sanitation Committee/Paani Samiti/user groups, etc. This involvement having ten to fifteen members has fifty percent women to be involved in planning, implementation, management, operation and maintenance of water supply systems to ensure long-term sustainability to achieve drinking water security.

The mission also aims to ensure a collective effort engaging citizens of the country to achieve the Prime Minister's vision of ensuring potable water to every rural household i.e. to make Jal Jeevan Mission, a 'Jan Andolan'- a people's movement as rightly suggested by Prime Minister Shri Narendra Modi in his 15th August 2019 speech from the Red Fort when he had said, "We are not to get tired in our efforts, nor shall we halt or hesitate in moving ahead. This campaign on Water conservation should not just remain a government initiative. It should become a people's movement like our Swacchh Bharat Abhiyan. We have to carry forward this movement with the help of common man's ideals, aspirations and efforts."

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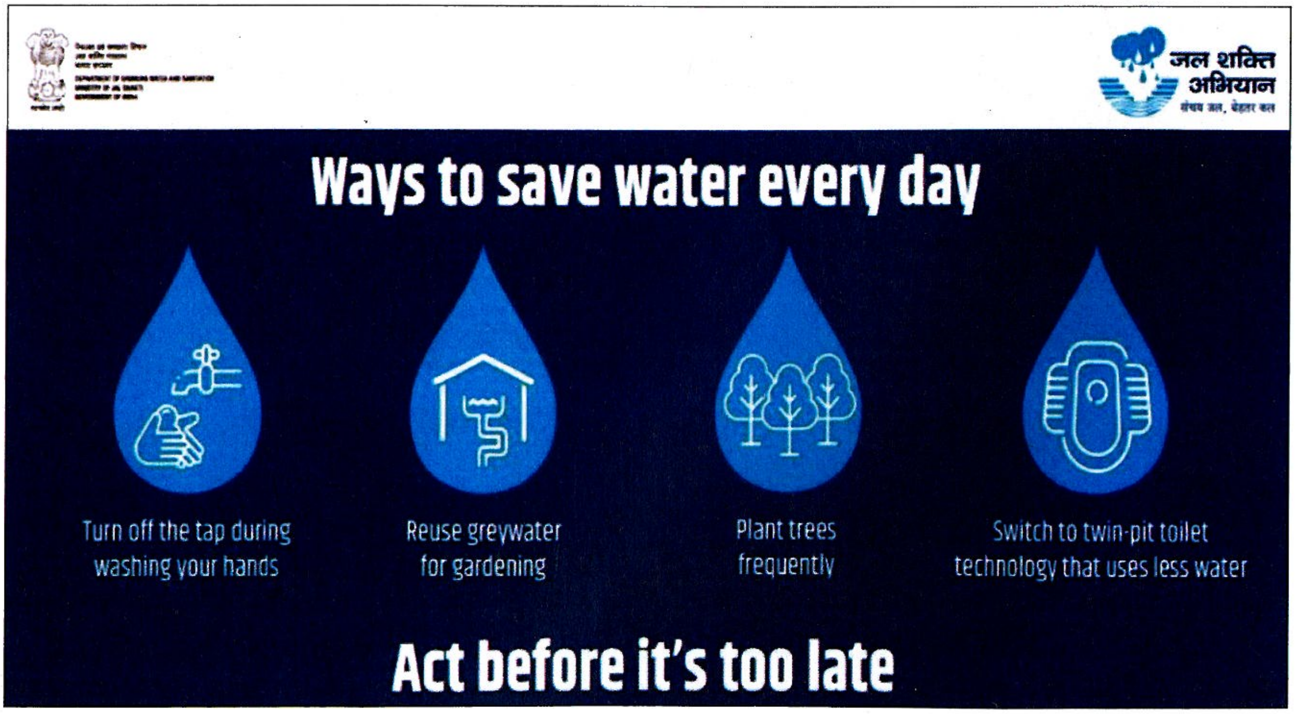
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अभियान
संचय जल, बेहतर कल
Ways to save water every day
Turn off the tap during washing your hands
Reuse greywater for gardening
Plant trees frequently
Switch to twin-pit toilet technology that uses less water
Act before it's too late

Swachh Bharat Mission

Sandip Das

The Swachh Bharat Mission (SBM) was launched as a mass movement to bring about behavioural changes for crores of people in India and instil healthy sanitation practices in their daily lives. The socio-economic impact of SBM has been phenomenal both in terms of improving sanitation in hinterland but also improvement in health parameters especially for women and children

In the post-independence phase, health and sanitation aspects were part of the five-year plans. In 1954, the rural sanitation programme in India was introduced as a part of the First Five Year Plan. However, these provisions did not result in improving sanitation conditions across the country. No separate funds were allocated for construction and repair of toilets, thus sanitation facilities remain a cause of worry across the country. The 1981 Census revealed rural sanitation coverage was only around 1 percent. The lack of sanitation had been a leading cause of diarrhoea among children (under five year) resulting in stunting among children and also resulted in several preventable child deaths. Sanitation is also a critical aspect for ensuring safety and dignity for women.

In 1986 a programme - Central Rural Sanitation Programme (CRSP) which solely focussed on sanitation was introduced. The first nationwide centrally sponsored programme aimed to provide safe sanitation in rural areas. Since the programme didn't address the question of Open Defecation, it did not provide desired results. In 1999, Total Sanitation Campaign (TSC) with a vision to eradicate open defecation by 2017 was launched. This was followed by the launch of Nirmal Gram Puraskar, Sampoorna Swachata Andolana Scheme and other initiatives to strengthen the TSC.

In 2006, TSC was merged with Indira Awas Yojana (IAY), then a flagship scheme under the Ministry of Rural Development which addressed rural housing needs by giving financial assistance for the construction of dwelling units for Below Poverty Line (BPL) families. The convergence allowed the use of funds for the construction of sanitary toilets in IAY houses. Toilets were constructed in large numbers, but the quality of construction remained a concern and there was no focus on changing behvaiour at the ground level in promotion of usage of toilets. Many households who had started using toilets slipped back to defecating in the open.

In 2012, the centre launched Nirmal Bharat Abhiyan (NBA), with an aim to provide 100 percent access to toilets in rural households by 2022. NBA was launched in convergence with Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). NBA was an update of TSC with renewed strategies and modified guidelines and objectives to accelerate sanitation coverage in the rural areas.

SWAACH
BHARAT

In 2014, Prime Minister Shri Narendra Modi led government revamped the NBA into Swachh Bharat Mission (SBM) and introduced two sub-missions – Swachh Bharat Mission (*Gramin)* and Swachh Bharat Mission (Urban). While the prime focus of the NBA was to improve the sanitation conditions in the rural regions of the country, SBM took urban areas under its ambit through construction of public toilets across cities and towns. Under SBM, the subsidy provided by the government for the construction of Individual Household Latrine (IHHL) was increased from Rs. 10,000 to Rs. 12,000.

The SBM was approved on September 24, 2014, and took effect from October 2, 2014. The goal was to achieve clean and Open Defecation Free (ODF) India by the 150th birth anniversary of Mahatma Gandhi on October 2, 2019. To make India ODF, the target was set to construct 67 lakh individual household toilets and 5 lakh community toilets in urban areas. For the rural areas, where the sanitation coverage was mere 38.70 percent at the time of launch of SBM, the aim was to bring it to 100 percent.

"A clean India would be the best tribute India could pay to Mahatma Gandhi on his 150th birth anniversary in 2019," said Shri Narendra Modi after launching the Swachh Bharat Mission at Rajpath in New Delhi on 2nd October 2014. While leading the mass movement for cleanliness, the Prime Minister exhorted people to fulfil Mahatma Gandhi's dream of a clean and hygienic India.

Mahatma Gandhi: Sanitation and Swaraj

Mahatma Gandhi's concern for public and private sanitation was part of his *satyagraha* campaign since the days he spent in South Africa. For Gandhi, the drive for cleanliness in society was an integral part of the process in bringing about a casteless and free society. "Everyone is his own scavenger," he once said stressing the need for making cleanliness a personal responsibility was key to removing untouchability.

Gandhi's call for sanitation came first during the satyagraha in South Africa. His priority back then was to remove the assertion made by white settlers that Indians lacked hygiene and therefore needed to be kept segregated. In an open letter to the Natal legislative assembly in 1894, Gandhi wrote that Indians too can maintain the same standards of sanitation as Europeans, provided they received the same kind of attention and opportunity. However, he had emphasised on the need for Indians themselves to take up the matter of cleanliness with a vigour and urgency.

Connecting the issues of cleanliness and untouchability, Gandhi emphasised the fact that it is extremely unjust to look upon those who do scavenging to be of the lowest social status. Stressing upon the need for better living conditions for those who did manual scavenging, Gandhi insisted that each one of us should be our own scavenger. He observed that since scavengers were considered to be of low status, people had been neglecting sanitation as 'unclean' work.

The drive for cleanliness in the Gandhian movement grew stronger after the non-cooperation struggle of the early 1920s. By that time, Gandhi's call for sanitation was firmly embedded in two separate movements- the struggle for independence and the need for removing untouchability. Emphasising on the close connection between cleanliness and swaraj, Gandhi asked Indians to learn from the West the art of municipal sanitation and modify it to suit our own specific needs. He maintained that open defecation should only be done in a secluded spot in a hole dug in the ground and commodes should be used in the latrines.

"Swaraj can only be had by clean, brave people," wrote Gandhi in an article titled 'Our insanitation' in 1925. Gandhi had stated that sanitation is more important than independence. He advocated that cleanliness is most important for physical well-being and a healthy environment and was essential for everyone to learn about cleanliness, hygiene, sanitation and the various diseases that were caused due to poor hygienic conditions. Mahatma Gandhi said, "I will not let anyone walk through my mind with their dirty feet".

The main objectives of SBM(G) are:

- Bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation
- Accelerate sanitation coverage in rural areas
- Motivate communities and Panchayati Raj Institutions to adopt sustainable sanitation practices and facilities through awareness creation and health education
- Encourage cost effective technologies for ecologically safe and sustainable sanitation
- Develop community managed sanitation systems focusing on scientific solid and liquid waste management systems for overall cleanliness in the rural areas
- Create significant positive impact on gender and promote social inclusion by improving sanitation especially in marginalised communities

For ensuring effective planning and implementation of SBM(G), a district was taken up as the base unit of intervention, with the goal of creating ODF Gram Panchayats. The District Collectors, Magistrates, CEOs of Zilla Panchayats were designated to lead the Mission, so as to facilitate district-wide planning of SBM for ensuring optimum utilisation of resources. The preparation of District Swachhta Plan (DSP) was the key aspect of SBM which outlined the scope of working to be taken up in a specific district for making it ODF in a time bound manner through ensuring behavior change initiatives.

Swachh Bharat Abhiyan *Gramin* was implemented with the aim of making rural areas in India open defecation free. There were several other activities which were implemented as a part of SBM. These programmes were broadly categorised into inter-ministerial and sectoral collaborations.

Some of the activities taken up through inter-ministerial collaboration are:

Namami Gange

The focus of the programme was to make villages near Ganga open defecation free and the handling in solid and liquid waste management implemented across 4000 villages located on the bank of Ganges in Uttrakhand, Jharkhand, Uttar Pradesh and West Bengal.

Swachh Swasth Sarvatra

A joint initiative by Ministry of Drinking Water and Sanitation (MDWS) and the Ministry of Health and Family Welfare, the main objective was to strengthen community health centres in 708 open defecation-free blocks around the country and to empower them to attain higher levels of cleanliness and hygiene.

Rashtriya Swachhata Kendra

The objective was to monitor the progress of the Prime Minister's Swachh Bharat Abhiyan programme. Rashtriya Swachhata Kendra was established by MDWS at Gandhi Smriti and Darshan Samiti, New Delhi.

Swachhata at Petrol Pumps

An initiative of the Ministry of Petroleum and Natural Gas, the focus was to create facilities for a clean basic toilet for promoting cleanliness and hygiene at all the petrol pumps.

Rashtriya Swachhata Kendra

Established by MDWS at Gandhi Smriti and Darshan Samiti, Rajghat, the key function was to monitor the progress of the SBM.

Swachh Bharat App and Web Portal

The objective behind the mobile application and web portal (www.swachhataactionplan.com) was to monitor coordination between 76 departments or ministries by MDWS, Committee of Secretaries, Cabinet Secretary and the Prime Minister's Office.

SBM at a Glance

Number of people who have changed their behaviours: 60 crore

Number of household latrines constructed since 2nd October, 2014: 10 crore

Swachhagrahis (grassroots motivators): 6.5 lakh

Incentive funding released to beneficiaries (Rs 12,000 per household) by central and state governments: Rs 100,000 crore

Table 1: India's Sanitation Coverage (%)

1981	1
1991	9
2001	21.92
2014	38.7
2019	100

Source: https://swachhbharatmission.gov.in/SBMCMS/writereaddata/Portal/Images/pdf/SBMG_Report_Card.pdf

Since the implementation of SBM, the rural sanitation coverage has increased significantly, from 39 percent in October 2014 to 100 percent in September 2019. Over 10 million household toilets were constructed under the SBM. Thirty-five States & Union Territories, 699 districts, and 599,963 villages have declared themselves as free from open defecation. The Mission, with its exclusive focus on Behaviour Change Communication, women's engagement and social inclusion has turned out to be an overwhelming success.

Addressing 20,000 Swachhagrahis and Sarpanches assembled from all over the country at a public event at the Sabarmati Riverfront in Ahmedabad on October 2nd 2019, the Prime Minister said 'the number of people practicing open defecation in India has gone down from 600 million in 2014, to negligible today, through an intensive behaviour change programme under the SBM,'. He said that by alleviating 60 percent of the world's share of people defecating in the open, India has significantly contributed to the global achievement of Sustainable Development Goals (SDG) 6.

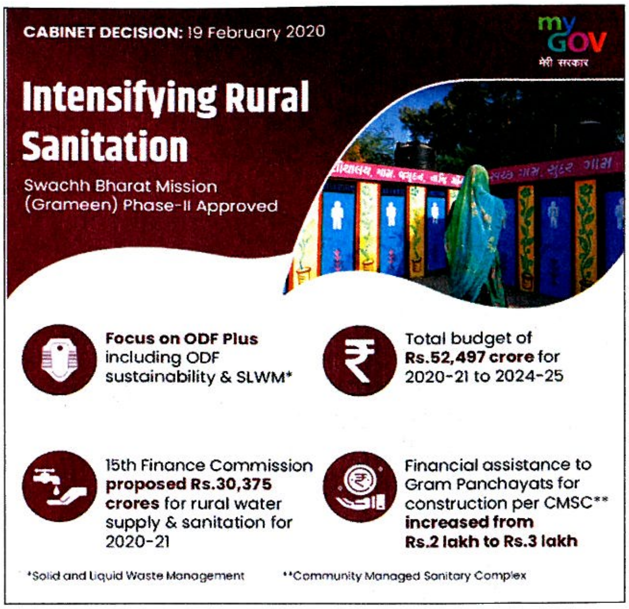
Impact Assessment of SBM

Several studies were conducted to assess socio-economic impact of SBM. Two studies provide vital information on the far-reaching impact of SBM in improving the socio-economic profile of rural masses.

The UNICEF studied the Financial and Economic Impact of the Swachh Bharat Mission in India in November 2018. The study adopted standard economic modelling methods for estimating the efficiency of development interventions. UNICEF implemented an independent survey on a sample of 18,376 respondents representing 10,068 rural households, randomly selected from 550 Gram Panchayats across 12 states accounting for 90 percent of open defecation in India.

Key findings:

- On an average, households in ODF villages accrued cumulative benefits of Rs.50,000 per year
- On an average, total benefits exceed costs by 4.7 times for households
- Financial savings from paying less for medical costs based on reductions in illness episodes (average Rs 8,024 per household per year).
- Reduced time lost from sickness and seeking a place for open defecation (average Rs 24,646 per household per year).
- Economic value of saved lives due to lower mortality rates (average Rs 17,622 per household per year).
- Rs 18,991 per household was estimated as the average increase in property value from having a latrine, made by the household occupants.


CABINET DECISION: 19 February 2020

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मेरी सरकार

Intensifying Rural Sanitation

Swachh Bharat Mission (Grameen) Phase-II Approved

Focus on ODF Plus including ODF sustainability & SLWM*

Total budget of **Rs.52,497 crore** for 2020-21 to 2024-25

15th Finance Commission **proposed Rs.30,375 crores** for rural water supply & sanitation for 2020-21

Financial assistance to Gram Panchayats for construction per CMSC** **increased from Rs.2 lakh to Rs.3 lakh**

*Solid and Liquid Waste Management **Community Managed Sanitary Complex

The study has shown that the Swachh Bharat *Gramin* was highly cost-beneficial from both a financial and an economic perspective. The impacts of reducing sanitation related diseases such as diarrhea and tropical enteropathy is beyond the saved medical expenditure and time of the patient and carer, it has lead to reduced suffering and improved quality of life to the population.

A study titled - Access to toilets and the safety, convenience and self-respect of women in rural India was conducted in collaboration between UNICEF, Bill & Melinda Gates Foundation (BMGF), Sambodhi Research and Communications Private Limited with assistance from Department of Drinking Water and Sanitation, Ministry of Jal Shakti.

For the study a representative sample of 8290 households (interviews with 6993 women and 1297 men) with a toilet constructed after 2017 were interviewed across 320 villages of five states – Bihar, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh. Selection of States (the districts) was actuated by the fact that they represented the highest percentage increase in toilet construction under SBM-G.

Key Findings:

- 40 percent of the households also constructed toilets to ensure proper sanitation and hygiene and more than half of the households constructed it to prevent the spread of diseases. A major improvement in the safety of women after the construction of toilets was evident, with 93 percent of women reporting that they were no longer afraid of being hurt by someone or harmed by animals while defecating.
- 91 percent of the women reported that they have been able to save up to an hour and do not have to travel up to a kilometre for defecation after the construction of toilets.
- Earlier, without access to a private toilet, women would deliberately limit their intake of water and other liquids to control the urge to urinate. But after the construction of a household toilet, 93 percent of the women reported no longer having to stop having food or water to control the urge to defecate or urinate.
- More than half of the women surveyed were afraid of being judged by others in their community when they did not have a private toilet. Also, almost half the women surveyed used to avoid their relatives or neighbours out of embarrassment over not having a private toilet.
- Majority of the women, especially unmarried young women, said they were proud to own a toilet. An overwhelming majority (88%) of men also reported a sense of pride in owning a toilet.

SBM (G)-phase II also referred ODF Plus

For ensuring that open defecation free behaviours are sustained and solid and liquid management facilities are accessible, the government has launched Swachh Bharat Mission (*Gramin*) SBMG phase II also referred as ODF-plus in February, 2020. The programme would be implemented in a mission mode till 2024-25, with a total outlay of Rs. 1,40,881 crores. Of this Rs 52,497 crore will be allocated from the budget of the Department of Drinking Water and Sanitation while the remaining amount will be allocated from the funds being released under 15th Finance Commission, MGNREGA and revenue generation models particularly for solid and liquid waste management.

Under the program, provision for incentive of Rs.12,000/- for construction of Individual Household Toilet to the newly emerging eligible households as per the existing norms will continue. Funding norms for Solid and Liquid Waste Management (SLWM) have been rationalised and changed to per capita basis in place of no. of households. The financial assistance to the Gram Panchayats (GPs) for construction of Community Managed Sanitary Complex (CMSC) at village level has been increased from Rs. 2 lakh to Rs. 3 lakh per CMSC.

The SBM-G Phase II is aimed at generating employment and providing impetus to the rural economy through construction of household toilets and community toilets, as well as infrastructure for SLWM such as compost pits, soak pits, waste stabilisation ponds, material recovery facilities etc. So that by the end of 2024-25, India would reach a significant milestone by providing sustainable sanitary facilities to millions of people.

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Clean Water, Sanitation and Health

Urvashi Prasad

India has made tremendous strides in the area of sanitation over the last few years. A significant scaling-up of access to toilet facilities coupled with regular usage is starting to impact health outcomes positively. The Prime Minister himself has personally championed the cause for a Clean India at multiple national and international fora. SBM has always found references in the Prime Minister's monthly Mann Ki Baat addresses and other public speeches, inspiring the masses to become a part of the sanitation revolution in India.

An adequate quantity of good quality water is essential for health as is access to sanitation facilities with appropriate disposal of sewage. Coupled with good hygiene practices, these two elements play a crucial role in reducing morbidity and mortality. The World Bank estimates that 21 percent of communicable ailments are water-borne. Diarrhea is among the biggest killers of children under the age of 5, in addition to neonatal complications, pneumonia and sepsis. Neglected tropical diseases, polio and malaria also have a strong association with poor water, sanitation and hygiene. Further, inadequate water and sanitation-related facilities in health care institutions is severely detrimental for mothers and newborns as it leads to the spread of infectious diseases. Similarly, poor mechanisms for managing menstrual hygiene management in educational institutions not only pose serious health concerns for girls but also impact their attendance and academic performance adversely.

Expanding Sanitation Coverage

India has made tremendous strides in the area of sanitation over the last few years. Under Swachh Bharat Mission (SBM), sanitation coverage in rural India increased from 39 percent in October 2014 to 100 percent as of October, 2019. As per the National Annual Rural Sanitation Surveys 2018-19 and 2017-18, the Quality Control of India Survey of 2017, as well as the NSSO survey of 2015, more than 90 percent of toilets constructed under the Mission were being used by household members thereby reflecting the discernible behaviour change in the sanitation habits of rural India.

Additionally, there is also a perceptible difference in the condition of public toilets in the country. Technology have been leveraged to enhance

the accessibility of toilets. For instance, over 57,000 public toilet blocks have been mapped across 2,300 cities on Google Maps as part of a pilot project launched across the cities of New Delhi, Bhopal and Indore, in collaboration with the Swachh Bharat Mission and Ministry of Housing and Urban Affairs. Significant progress has also been made in the area of solid waste management with 66 percent of solid waste being processed and 96 percent of wards practicing door-to-door collection.

In fact, the rural sanitation coverage even in Aspirational Districts is almost at par with the national sanitation coverage, which speaks volumes about the programme's overarching impact across the entire nation. For instance, in the delta ranking of March, 2019, Bhupalpally was ranked first among Aspirational Districts. This was made possible by the focus of the District Collector on ensuring the construction of school toilets with running water facilities along with facilities at Anganwadi centers, among other interventions. Similarly in Vizianagaramwas, initially rated as one of the most backward districts in the country, no block in the district had more than 50 percent toilet coverage till February 2017. One of the most significant initiatives in the district that triggered the large-scale construction of individual household toilets and made sanitation a mass movement was the famed 100 Hours Programme. As part of this programme, 10,000 Individual Household Latrines were constructed in a mere 100 Hours to declare 71 Gram Panchayats Open Defecation Free. The Andhra Pradesh Government's Flagship Programme Stree Nidhi Credit Cooperation provided timely, affordable and interest-free loans of Rs. 12,000 to each beneficiary for the construction of toilets. As a consequence, individual household toilet coverage in Vizianagaram grew from 11.42 percent to 73.37 percent between 2014 and 2018.

A significant scaling-up of access to toilet facilities coupled with regular usage is starting to impact health outcomes positively. UNICEF has estimated that each family in an ODF village in India saves Rs. 50,000 per year on account of avoided medical costs, less sick days and the value of lives saved. Similarly, a study conducted by the Bill and Melinda Gates Foundation highlighted that cases of diarrhoea were 46 percent lower among children in villages that had been declared ODF, as compared to villages that had not achieved that status.

This transformation has been made possible through a combination of factors. Firstly, we have witnessed strong political will for making change happen. The Prime Minister himself has personally championed the cause for a Clean India at multiple national and international fora. SBM has always found references in the Prime Minister's monthly Mann Ki Baat addresses and other public speeches, inspiring the masses to become a part of the sanitation revolution in India. It is his personal commitment towards ensuring the success of Mission that has further encouraged other senior political leaders to spread the message of swachhata in their respective spheres of influence.

Second, there has been a strong emphasis on behaviour change. SBM has focused on outputs and outcomes from the outset, which distinguishes it from other programmes that were focused primarily on the construction of toilets. Earlier schemes mistakenly assumed that the use of a constructed toilet was a given, and progress was reported in these previous programmes in terms of simply "toilets built". SBM is the first sanitation programme in India that has followed a demand-driven approach as opposed to being supply-driven along with measuring success in terms of "Open Defecation Free" (ODF) villages and districts, instead of mere toilet construction.

Third, SBM has had an unwavering focus on decentralised monitoring through the extensive use of modern technology. Villages declared ODF are verified within 3 months of declaration by block and district officials. In case any gaps are identified during verification, block officials are informed and asked to take corrective measures in a timely manner, following which another round of verification is done. All components of the Mission - construction, payment of incentives, ODF declaration, verification, and even active personnel in every village -are reported on a real-time basis by states, districts, Gram Panchayats and villages. Every toilet constructed under the Mission was mandatorily geo-tagged so as to ensure that the process is completely transparent. The SBM dashboard became somewhat of a symbol of progress in action with its ticking clock of toilets showing the constant and speedy progress the Mission was making on the ground in real time.

Recently, the Government has launched an MIS portal in an effort to integrate the numerous digital initiatives under SBM on a single platform in order to enable a hassle-free experience for states and cities.

In 2015, the Government launched, Swachh Survekshan an annual survey of cleanliness, hygiene and sanitation across India's towns and cities. Over the years, the focus of the survey has shifted towards assessing the sustained performance of cities on sanitation and hygiene as well as emphasising additional critical areas like solid waste management, complete fecal sludge and septage management and wastewater treatment and reuse.

In addition to Swachh Survekshan, good practices like segregation of waste at source, scientific waste processing, penalties for littering and dumpsite remediation are being institutionalised through innovative frameworks such as the Star Rating Protocol for Garbage Free Cities. Further, in order to realise the Prime Minister's vision of a single-use plastic free India by 2022, the Government is collaborating with the Cement Manufacturing Association and the National Highway Authority of India to promote plastic reuse in road construction. Beyond government intervention, citizens are developing innovative models like the Garbage Café where people can get a meal in return of plastic waste.

Improving Access to Good Quality Water

Data is one of the key levers that can help address the challenges related to water availability and quality in the country. As a major leap in this direction, NITI Aayog has come out with a Composite Water Management Index as a useful tool to assess and improve the performance in efficient management of water resources. It's a fact that water is a state subject and its optimal utilisation and management lies predominantly within the domain of the states. This index is an attempt to nudge states towards efficient and optimal utilisation of water and recycling thereof with a sense of urgency.

Although water supply is a state subject, the Central Government plays an important role in developing standards and guidelines as well as financing, including using incentive-based mechanisms to catalyse a shift in focus from outputs to outcomes. In 2017, the Union Cabinet restructured the National Rural Drinking Water Programme (NRDWP) to make it more outcome-based, ensure a greater focus on functionality of services as well as provide greater flexibility to states in utilising funds allocated under the scheme. As part of the restructured programme, 2 percent of the funds were earmarked for Japanese Encephalitis in affected areas. The National Water Quality Sub-Mission initiated by the Ministry of Drinking Water and Sanitation in February 2017 was included as a sub-programme under NRDWP to provide clean drinking water in 28,000 habitations affected by arsenic and fluoride. Release of a certain proportion of funds from the centre to states was made contingent on the functionality of the piped water supply infrastructure as verified by a third party. The approach of assessing functionality instead of simply putting infrastructure in place will eventually lead to better outcomes by ensuring that the focus is not just on laying down water pipelines but ensuring their continued functionality.

A new Jal Shakti ministry was created by the Government to integrate two ministries that were managing water-related issues. In 2019, the Government launched an upgraded version of NRDWP, 'Har Ghar Nal Se Jal', a flagship programme under the Jal Jeevan Mission, to provide piped water supply to all rural households by 2024. Under the programme, annual targets have been defined for states and districts. Certain components are required to be mandatorily implemented by states, including establishing bore-wells and tube-wells in areas which lack the infrastructure for supplying water as well as pumps with dry sensors and recharge structures. In addition to ensuring access to piped water across the country, the Jal Jeevan Mission will also focus on rainwater harvesting, groundwater recharge and water recycling. In his Independence Day address of 2020, the Prime Minister emphasised the importance of making India water secure by announcing an allocation of Rs 3.35 lakh crore for the Jal Jeevan Mission.

The Way forward

While behaviours can be modified even in a short period of time, evidence suggests that in order to produce a sustained change, behaviour -change campaigns need to be implemented on a regular basis. To safeguard against the possibility of families reverting to old habits, the SBM guidelines incentivise on-ground *swachhagrahis* to continue their door-to-door messaging, regular verifications and early morning *nigrani* visits to open defecation hotspots in the village long after it has been declared ODF. Incentives and benefits need to be designed for promoting the use of infrastructure. For example, a teacher or student who champions the cause of sanitation in school or plays a vital role in maintaining facilities should be recognised or rewarded appropriately. The personal habits of children are in the process of being shaped and they can also act as change agents for their communities. Messages pertaining to health and hygiene must therefore become an integral part of the school curriculum.

Targeted behavior change communication campaigns can also be designed specifically for panchayats and cities where reversals in ODF status are observed. Moreover, these campaigns should not only emphasise maintenance and regular usage of toilets but also encourage households to segregate waste into wet, dry and hazardous waste at source. Further, disposal of kitchen and home waste should be promoted at the local level through resident welfare associations.

Involving panchayats and local communities by training them on water quality contamination and management is also critical. In Gujarat, the Water and Sanitation Management Organisation implemented an innovative model for involving communities with planning and maintaining a project that enabled over 76 percent of rural households across 6,787 villages to access a tap connection. Village communities contributed 10 percent of the initial cost of the project and assumed responsibility for ongoing operation and maintenance by utilising tariff collected from users. Teams were also been formed at the local level for water quality monitoring in the state.

Beyond access to clean drinking water and sanitation, basic hygiene practices such as handwashing with soap need to be adopted widely. Hand washing plays a particularly important role in preventing child mortality. For instance, it is estimated that handwashing with soap can lower the incidence of diarrhea and acute respiratory infections by 40 percent and 20 percent respectively. Additionally, menstrual hygiene management practices must also be prioritised going forward, both within the household as well as in institutional settings like schools and offices.

It is also critical that we constantly innovate and develop culturally acceptable, ecologically robust and cost-effective technology options in the sanitation sector that are well suited to local conditions and resource availability. Technologies that have been successfully piloted in different parts of India or in other countries need to be scaled-up, following the necessary adaptations. For instance, greater emphasis could be laid on high-efficiency toilets which use 4-6 litres of water per flush instead of the 10-15 litres used by traditional toilets. These alternatives should of course be capable of delivering comparable levels of service to the traditional systems in widely varying rural and urban settings. Systems for scientific and safe management of solid and liquid waste also need to be developed to prevent contamination of water sources.

Now that sanitation coverage in terms of access to individual household toilets has been ramped up significantly, the focus must shift towards ensuring safe containment, transportation and disposal of fecal sludge and septage from toilets, as well as the grey and black water from households and establishments. Additionally, all wastewater must be treated prior to discharging into water bodies. Lastly, but perhaps most crucially, all efforts should be made to ensure the safety and dignity of sanitation workers through the provision of protective gear and mechanised equipment.

The quality, pace and scale of progress made under SBM is undeniable and reflected in the ground realities as well. SBM has provided a solid foundation. Much like SBM, the Jal Jeevan Mission too needs to become a mass movement, with the involvement of people from all walks of life. The Government obviously has a big role to play, however, so does every citizen of the country in ensuring that we continue to build on the gains made during the last few years and realise the vision of a Swachh and Swasth New India.

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Health and Hygiene Concerns for Rural Women

Santosh Jain Passi and Akanksha Jain

Rural women are considered the backbone of Indian rural economy since they play an important role in managing their homes as well as the agri-farms and livestock. Hence, women's health should be a priority concern for the family and the community at large.

India is one of the few nations in the world where the males and females have nearly the same life expectancy at birth. As per the World Bank Report (2015), in India, life expectancy at birth for males is 67.46 years while that for females is 69.83 years. Yet girls/women suffer from rather high mortality rates, particularly during their childhood as well as the reproductive years of their life (15-45 years) and thereafter. Indian women's health and well-being is inherently linked to their status in the society. Research studies related to women's status have reported that the contributions made by Indian women towards welfare of the family are often overlooked; and instead, the female gender at all ages is viewed as an economic burden for the household. In our country, even in the current scenario, there is a strong preference for sons as they are expected to care for the parents during their old age. This gender discrimination among children coupled with escalating dowry expense for the daughters sometimes lead to maltreatment of the girl-child. Further, girls and women often have low levels of education, poor vocational skill training, lack of awareness and poor exposure as well as rather poor participation in organised sector/formal work force and that too very often with low wages or no wages. They typically suffer lack of autonomy; living under the control of firstly their fathers/brothers, thereafter their husbands and finally their sons. All these factors pose a negative impact on their health status.

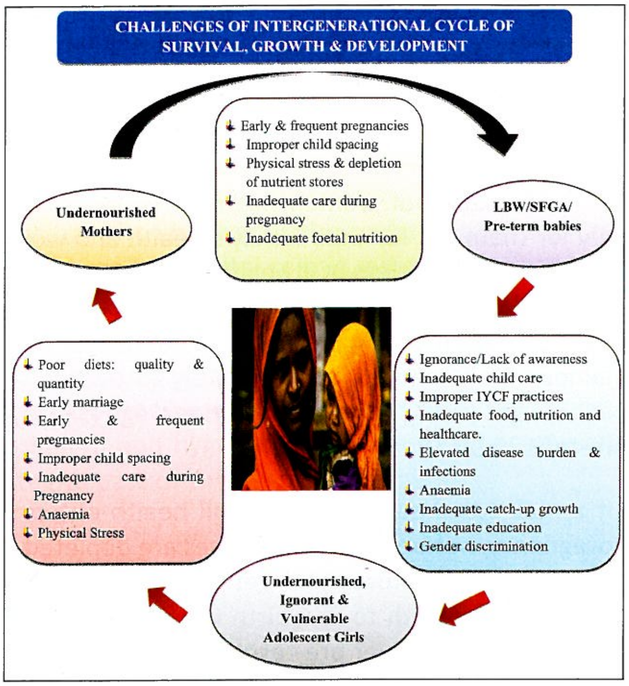
Health is one of the fundamental human rights. As per Article 47 of the India's Constitution – "The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health".

Poor health of women has repercussions not only for them but for their family's health and well-being too. The problem of ill health and malnutrition is complex, multi-dimensional and very often inter-generational in nature. Undernourished and malnourished women are more likely to bear low-birth weight (LBW)/small-for-gestational age (SFGA)/ pre-term babies.

If a malnourished woman with ill health enters pregnancy, not only her body stores are depleted but her foetal's stores also get hampered. Such mothers give birth to low-birth weight or small-for-gestational age or pre-term babies and there is a possibility of still-birth or even abortion. In case, the new-born is a girl child, she not only comes to the world with a disadvantage (low-birth weight and poor nutrient stores) but she doesn't even receive enough nourishment from her weak and poorly nourished mother. As a result, her growth and development (physical and mental development) are adversely affected. A low-birth-weight baby-girl borne by a malnourished mother often grows as a stunted/ malnourished girl child → stunted/malnourished adolescent girl → malnourished woman; and in the years to come, she in turn gives birth to the second-generation low-birth-weight baby/ babies. This clearly illustrates how poor in-utero nutrition from an under-nourished mother (both prior to and during pregnancy/lactation) extends through the life-course affecting nutrition and health status across generations, and thus setting in inter-generational cycle of malnutrition.

This is further heightened in the case of teenage pregnancies where the adolescent girls have to bear the dual-burden of their own growth/ development as well as that of the developing foetus leading to a still poorer pregnancy outcome. Both the individual level and intergenerational cycles of under-nutrition/ill health operate simultaneously posing grave consequences.

Figure 1: Intergenerational Cycle Highlighting the Challenges Relating to Survival, Growth & Development


CHALLENGES OF INTERGENERATIONAL CYCLE OF SURVIVAL, GROWTH & DEVELOPMENT
Early & frequent pregnancies
Improper child spacing
Physical stress & depletion of nutrient stores
Inadequate care during pregnancy
Inadequate foetal nutrition
Undernourished Mothers
LBW/SFGA/ Pre-term babies
Poor diets: quality & quantity
Early marriage
Early & frequent pregnancies
Improper child spacing
Inadequate care during Pregnancy
Anaemia
Physical Stress
Ignorance/Lack of awareness
Inadequate child care
Improper IYCF practices
Inadequate food, nutrition and healthcare.
Elevated disease burden & infections
Anaemia
Inadequate catch-up growth
Inadequate education
Gender discrimination
Undernourished, Ignorant & Vulnerable Adolescent Girls

Rural women are considered the backbone of Indian economy since they play an important role in managing their homes as well as the agri-farms and livestock. Hence, health of the women should be the concern of family and community.

As defined by WHO 'Health is a state of complete physical, mental and social well-being and not merely the absence of any disease or infirmity'. Health is a multi-dimensional aspect; for ensuring good health, it is important to maintain a continuous interaction among its dimensions such as physical, mental, social, emotional, spiritual, vocational and political. Women's Health refers to the branch of medicine that focuses on the treatment/diagnosis of diseases or conditions that affect a woman's physical and emotional well-being.

Poor maternal health and malnutrition is the biggest single cause of infant and maternal mortality; therefore, appropriate care and improvement in nutritional status of the mothers particularly during pregnancy and lactation is vital. In addition to child bearing and child rearing, rural woman shoulder multiple roles. For maintaining good health and optimum nutritional status of the women, their health and hygiene practices play an important role. Good health of the women themselves and their proper health, hygiene and sanitation practices in turn help in uplifting the health and socioeconomic status of the family and the community as a whole. As quoted by WHO, the slogan 'Make every mother and child count' highlights the seriousness of International Welfare Agencies towards the health of women and children in general and that of the poor/illiterate rural women as well as their malnourished children in particular.

The aim of Sustainable Development Goal-3 (SDG-3) is to ensure healthy lives and promote wellbeing for all at all ages. The highest attainable standard of health is a fundamental right of every person; however, gender-based discrimination challenges this right. Fulfilling the right to health requires health systems to become fully responsive to women/girls, offering high quality, comprehensive and readily accessible services. Societies at large must end practices that critically endanger women's health and well-being including all forms of gender-based violence.

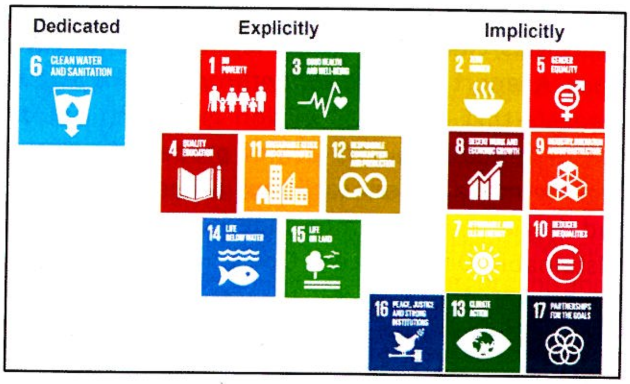
The global definition of an 'improved' sanitation facility is the one that hygienically separates human excreta from human contact (WHO/UNICEF, 2015). United Nations General Assembly Resolution 71/222 proclaims the period 2018 to 2028 'the International Decade for Action -Water for Sustainable Development' to further improve cooperation, partnership and capacity development in response to the ambitious 2030 Agenda.

According to the World Health Organization (WHO), Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases. Personal hygiene refers to maintaining the body's cleanliness.

Clean potable water is critical for survival, and its absence or insufficiency can adversely impact the health, food security and livelihoods of families all over the world. While water is vital, sanitation helps to protect both – the human health as well as the environmental safety by ensuring pollution-free atmosphere.

Keeping the Sustainable Development Goals (SDGs) in view, the global community is committed to expand international cooperation and capacity building on water and sanitation related activities/

Figure 2: Sustainable Development Goals –Connect with Water & Sanitation


Dedicated
Explicitly
Implicitly
6 CLEAN WATER AND SANITATION
1 NO POVERTY
3 GOOD HEALTH AND WELL-BEING
2 ZERO HUNGER
5 GENDER EQUALITY
4 QUALITY EDUCATION
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
14 LIFE BELOW WATER
15 LIFE ON LAND
7 AFFORDABLE AND CLEAN ENERGY
10 REDUCED INEQUALITIES
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
13 CLIMATE ACTION
17 PARTNERSHIPS FOR THE GOALS

programmes as well as to support the local communities in improving water and sanitation management. For attaining Goal-6, all the nations have resolved to achieve universal access to safe drinking water and adequate hygiene/sanitation for all by the year 2030.

The overall proportion of Indian households with access to improved water sources increased from 68 percent (1992-93) to 89.9 percent (2015-16). Data also indicate that in 2015-16, 63.3 percent of rural households and 19.7 percent of urban households were still not using improved sanitation facilities.

National Health Policy (NHP; launched in 1983) was revamped in 2017 with an aim to inform, clarify, strengthen and prioritise the Government's role in shaping the health systems holistically covering all its dimensions – health related investments, organisation of the healthcare services, disease prevention and promotion of good health through appropriate inter-sectoral coordination, use of updated technologies, human resource development, strengthening health-care systems and health assurance. Further, NHP has identified priority areas for improving health of the people through coordinated action which include:

- Swachh Bharat Abhiyan
- Balanced, healthy diet and regular exercise
- Addressing tobacco, alcohol and substance abuse
- NirbhayaNari –action against gender violence
- Reduced stress and improved safety in the work place
- Reducing indoor and outdoor air pollution

Health system strengthening programmes include Ayushman Bharat Yojana; Pradhan Mantri Swasthya Suraksha Yojana (PMSSY); LaQshya' programme (Labour Room Quality Improvement Initiative); National Health Mission.

Ayushman Bharat – a flagship scheme of GoI, was launched under the aegis of National Health Policy (2017), to achieve the vision of Universal Health Coverage (UHC). The scheme aims to undertake path breaking interventions to holistically address the healthcare system (covering prevention, promotion and ambulatory care) at the primary, secondary and tertiary level. Ayushman Bharat adopts a continuum of care approach, comprising of two inter-related components-

- **Pradhan Mantri Jan ArogyaYojana (PM-JAY)**
- **Health and Wellness Centres (HWCs)**

To accelerate the efforts for achieving universal sanitation coverage, the Prime Minister had launched the Swachh Bharat Mission on 2nd October 2014. Under this mission, over 100 million toilets have been constructed in rural India; and all villages, Gram Panchayats, Districts, States and Union Territories declared themselves 'open-defecation free' (ODF) by 2nd October 2019, the 150th birth anniversary of Mahatma Gandhi. Further, for inculcating sustained open defecation free behaviours, leaving none behind, as well as for providing easily accessible solid and liquid waste management facilities, the Mission has entered Phase II of Swachh Bharat Mission-Grameen (SBMG/ ODF Plus). Under this, apart from reinforcing the ODF behaviours, a due focus is being laid on the provision of interventions for safe management of solid and liquid waste in rural areas. To ensure proper waste disposal, dustbins are being placed at every convenient and easily accessible spot, as per requirement of the community.

These figures are expected to increase significantly given that improving sanitation is a key priority of the government and it has introduced several flagship programmes including the Swachh Bharat Abhiyan (a country-wide campaign initiated by the GoI in 2014 to eliminate open defecation and improve solid waste management; phase 1 of the mission lasted till October 2019; and phase 2 is being

Table 1: Data pertaining to Swachh Bharat Mission-Grameen at a glance

Number of Toilets Built since 2nd October 2014	10,28,67,000
Number of Toilets Built during FY 2020-21 *(as on date)*	29,94,754
Increase in the number of households with toilet facility since 2nd October 2014	61.25%
Number of Open defecation free/ODF Districts *(self-declared)*	706
Number of Open defecation free/ODF Gram-Panchayats *(self-declared)*	2,62,736
Number of Open defecation free/ODF villages *(self-declared)*	6,03,177

Source: Ministry of Jal Shakti, SBM-G;
http://sbm.gov.in/sbmreport/home.aspx

implemented between 2020-21 and 2024-25); the National Rural Drinking Water Programme (aims at improving the coverage of adequate & safe drinking water to the rural population of the country); and Namami Gange (aims at effective abatement of pollution, conservation and rejuvenation of the sacred River Ganga).

Jal Jeevan Mission (JJM) is envisioned to provide safe and adequate drinking water through individual household level tap connections by the year 2024 to every household in rural India. The programme will also give prime importance to implement various source sustainability measures such as water conservation, rain water harvesting, recharging of the ground water and efficient water management through its reuse/recycling. This Mission based on community approach to water envisages to lay extensive stress on Information, Education and Communication and proposes to create a Jan Andolan for making it everyone's priority. In this regard, Indian masses have started participating and are spreading the message - 'Cleanliness is next to Godliness'.

In the context of adolescent girls and women, their hygiene and cleanliness related practices during menstruation are of prime importance; not doing so increases their vulnerability to Reproductive Tract Infections and other health risks. In many rural/remote parts of our country, girls are neither aware nor they are prepared to face menstruation; and hence, they suffer several difficulties/challenges at home, school and work place. A report by *Dasra Philanthropy Forum* (2019) suggests that nearly 23 million girls drop out of school annually due to lack of proper menstrual hygiene management facilities. Menstrual health and hygiene is an important objective of the Sustainable Development Goals, particularly SDG 6.2 which aims to achieve access to adequate and equitable sanitation and hygiene for all and end open defecation with special focus on the needs of women and girls and those in vulnerable situations. Further, awareness regarding the use of biodegradable sanitary products made from materials like banana fibre, bamboo fibre, sea sponges and water hyacinth needs to be generated.

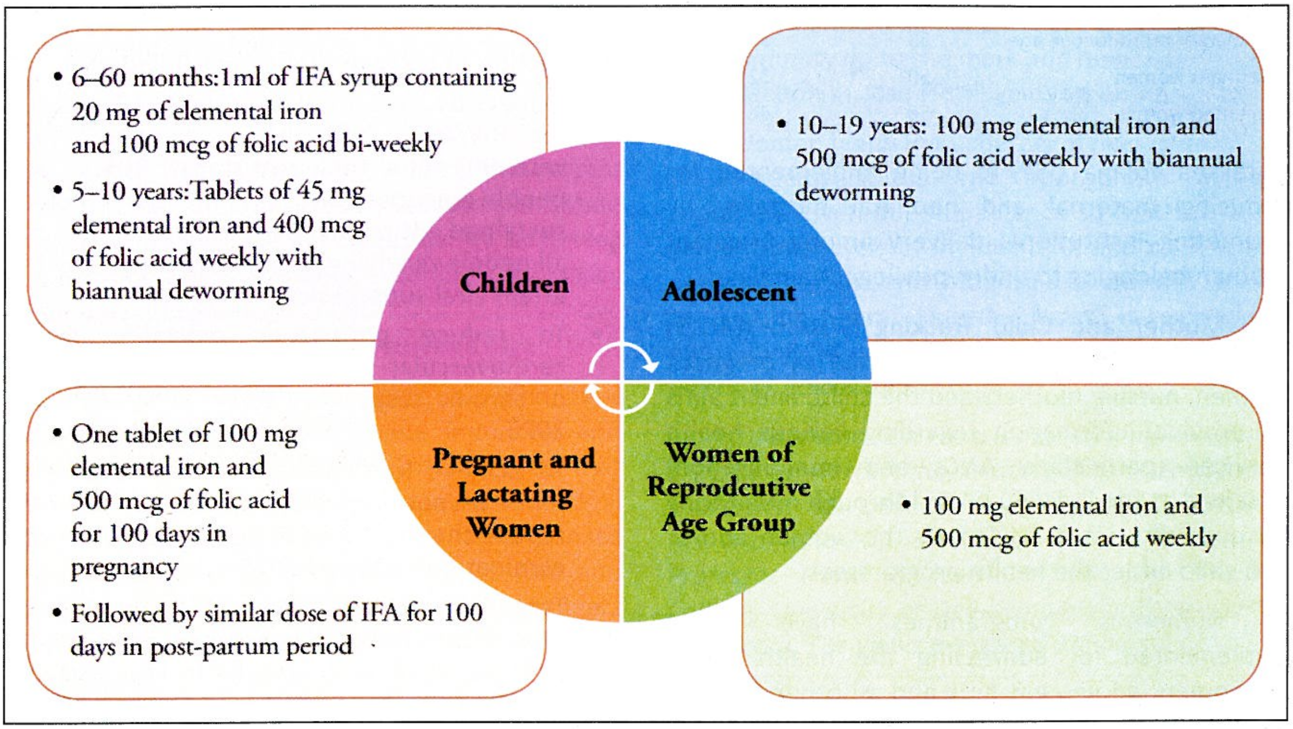
Menstrual Hygiene Scheme (MHS) was introduced by the Ministry of Health and Family Welfare for promoting menstrual hygiene among adolescent girls (aged between 10-19 years) in rural areas with the aim to increase their awareness regarding menstrual hygiene; improve access and increase the use of high quality sanitary napkins; and to ensure their safe as well as environment friendly disposal. Initially in 2011, the scheme was implemented in 17 states (covering 107 select districts) and a pack of six sanitary napkins (Free-days) costing Rs 6/- per pack was provided to rural adolescent girls. However since 2014, under National Health Mission - the States/UTs are provided funds for decentralised procurement of sanitary napkins to be provided to rural adolescent girls at subsidized rates (Rs 6/pack containing 6 napkins). The ASHA workers are given the responsibility of distribution at a small incentive (Re 1/pack sold + 1 free pack/month for personal use). In addition, they are required to convene monthly meetings (at *aanganwadi centres*/other such platforms) for adolescent girls to address the issue of menstrual hygiene as well as for discussing other relevant sexual and reproductive health issues. A range of IEC materials (audio, video & print material) have been developed for creating awareness regarding safe and hygienic menstrual health practices among adolescent girls; and for effective communication, necessary job-aids have been designed for the ASHA workers/other field level functionaries. Also, self-help groups have been trained in the making of sanitary napkins. Further, for girl students, Swachh Bharat Swachh Vidyalaya campaign ensures proper sanitation/ disposal facilities (place for changing, soap & water availability and appropriate disposal) in every school. SABLA program also stresses on awareness regarding health and hygiene among women.

The key components of National Health Mission (NHM) include – Anaemia Mukt Bharat; organisation of Village Health camp; Nutrition Days as well as Sanitation & Nutrition days (for providing maternal/ child health services and awareness generation regarding maternal & child care); Iron and Folic Acid (IFA) supplementation; calcium supplementation and promotion of iodised salt consumption.

Under National Iron Plus Initiative (NIPI) programme, for control of iron deficiency anaemia across life stages, iron and folic acid supplements are being given; the dosage vary as per the need of the beneficiaries. In addition, biannual deworming is carried out for children and adolescents as given in figure below:

Intensified National Iron Plus Initiative (I-NIPI) is aimed at reducing the prevalence of anaemia by

Figure 3: National Iron Plus Initiative - Package of Services and Interventions



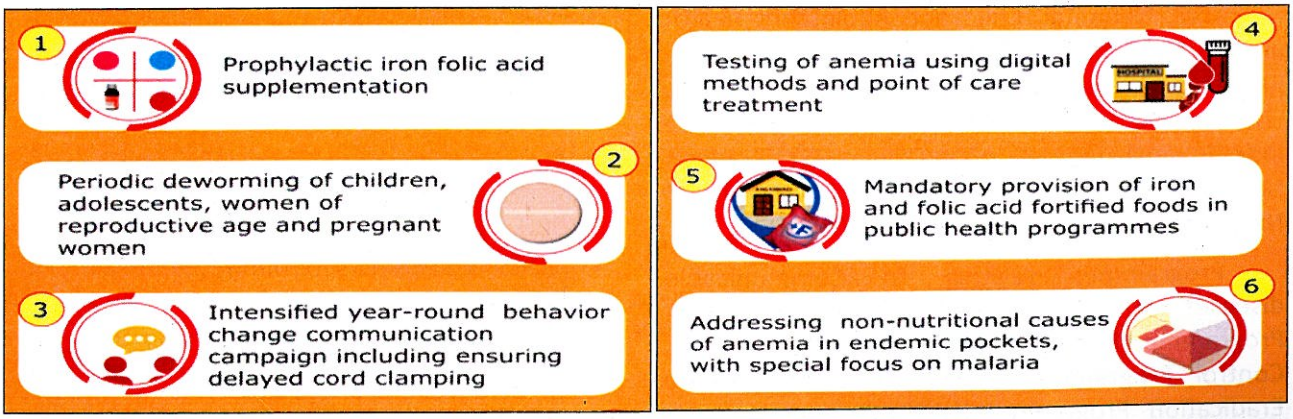
- 6–60 months: 1 ml of IFA syrup containing 20 mg of elemental iron and 100 mcg of folic acid bi-weekly
- 5–10 years: Tablets of 45 mg elemental iron and 400 mcg of folic acid weekly with biannual deworming

- 10–19 years: 100 mg elemental iron and 500 mcg of folic acid weekly with biannual deworming

- One tablet of 100 mg elemental iron and 500 mcg of folic acid for 100 days in pregnancy
- Followed by similar dose of IFA for 100 days in post-partum period

- 100 mg elemental iron and 500 mcg of folic acid weekly

Figure 4: Intensified National Iron Plus Initiative Interventions



1 Prophylactic iron folic acid supplementation

2 Periodic deworming of children, adolescents, women of reproductive age and pregnant women

3 Intensified year-round behavior change communication campaign including ensuring delayed cord clamping

4 Testing of anemia using digital methods and point of care treatment

5 Mandatory provision of iron and folic acid fortified foods in public health programmes

6 Addressing non-nutritional causes of anemia in endemic pockets, with special focus on malaria

3 percentage point per annum.

Weekly Iron Folic Acid Supplementation (WIFS) programme's main objective is to reduce the prevalence and severity of nutritional anaemia in adolescent population (10-19 years).

Under the National Health Mission, Janani Suraksha Yojana (JSY) is being implemented for reducing maternal and neonatal mortality by promoting institutional delivery among pregnant women belonging to under-privileged families.

Table 2: Anaemia reduction targets

Anemia reduction targets for 2022		
Age group	**Anemia prevalence (%)**	
	Baseline (NFHS 4)	**National target 2022**
Children 6-59 months	58	40
Adolescent girls 15-19 years	54	36
Adolescent boys 15-19 years	29	11
Women of reproductive age	53	35
Pregnant women	50	32
Lactating women	58	40

Mother and Child Tracking System (MCTS) helps in tracking the health status of pregnant women, nursing mothers and the child; and it aims to provide information regarding various health services (particularly ANCs and immunisation) received at the individual level through monitoring all events/services availed by the woman and/or the child under the health programmes.

Numerous programmes have been implemented for addressing the health needs of women, adolescent girls and all other age and gender groups, and thus, the family as a whole.

Programmes relating to Reproductive, Maternal, Neonatal, Child and Adolescent health include Janani Shishu Suraksha Karyakaram (JSSK); Rashtriya Kishor Swasthya Karyakram (RKSK); Rashtriya Bal Swasthya Karyakram (RBSK); Mission Indradhanush; Janani Suraksha Yojana (JSY); Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) and Navjaat Shishu Suraksha Karyakram (NSSK).

Programmes relating to Communicable diseases include Integrated Disease Surveillance Programme (IDSP); Revised National Tuberculosis Control Programme (RNTCP); National Leprosy Eradication Programme (NLEP); National Vector

National Health Policy – Targets

Life Expectancy and healthy life

- Increase Life Expectancy at birth from 67.5 to 70 by 2025.
- Establish regular tracking of Disability Adjusted Life Years (DALYs) Index as a measure of disease burden and its trends by major categories by 2022.
- Reduction of Total Fertility Rate (TFR) to 2.1 at national and sub-national level by 2025.

Mortality by Age and/or cause

- Reduce Maternal Mortality Rate from current levels to 100 by 2020.
- Reduce infant mortality rate to 28 by 2019.
- Reduce neo-natal mortality to 16 and still birth rate to single digit by 2025.

Reduction of disease prevalence/incidence

- Achieve by 2020 the global target of 90:90:90 for HIV/AIDS (90% of all people living with HIV know their HIV status; 90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy; and 90% of all people receiving antiretroviral therapy to attain viral suppression.
- To reduce premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases by 25% by 2025.
- To achieve and maintain >85% cure rate for new sputum positive patients of TB and reduce the incidence of new cases to attain elimination status by 2025.
- Targeted to achieve and maintain elimination status of Leprosy by 2018, Kala-Azar by 2017 and Lymphatic Filariasis in endemic pockets by 2017
- To reduce the prevalence of blindness to 0.25/1000 by 2025.

Health Systems Performance/Coverage under Health Services

- Increase utilisation of public health facilities by 50% from current levels by 2025.
- Sustained antenatal-care coverage above 90%; and skilled attendance at birth above 90% by 2025.
- Meeting the needs for family planning above 90% at national/sub national level by 2025.
- 80% of known hypertensives and diabetics under home care maintain 'controlled disease status' by 2025.

Borne Disease Control Programme; National AIDS Control Programme (NACP); Pulse Polio Programme; National Viral Hepatitis Control Program; National Rabies Control Programme; National Programme on Containment of Anti-Microbial; Resistance (AMR).

Programmes related to Non-communicable Diseases include National Tobacco Control Programme (NTCP); National Programme for Prevention and Control of Cancer Diabetes, Cardiovascular Diseases & Stroke (NPCDCS); National Programme for Control Treatment of Occupational Diseases; National Programme for Prevention and Control of Deafness (NPPCD); National Mental Health Programme; National Programme for Control of Blindness & Visual impairment; Pradhan Mantri National Dialysis Programme; National Programme for the Health Care for the Elderly (NPHCE); National Programme for Prevention & Management of Burn Injuries (NPPMBI).

Swasth Nagrik Abhiyan – a social movement for health, recommends setting indicators and their targets as well as the mechanisms for achieving the priority areas mentioned earlier. The policy recognizes and gives due importance to preventive and promotive care along with curative care.

Good health and appropriate nutrition, thus help in strengthening our innate immunity and provide us the ability to fight infections so that one does not fall sick. Still in case an individual encounters disease, not only the course of disease is modified, severity of the disease is low and duration is shorter; thus the individual recovers faster without much damage or strain on the body.

Thus, health and hygiene go hand in hand for promoting overall wellness. Even in the COVID-19 times this fact is as valid as it can be. Proper hygiene practices are extremely important to prevent the spread of COVID-19 virus as well as transmission of other viruses/bacteria which may be the cause of common colds, flu and pneumonia, thus reducing the overall disease burden. Social distancing and the use of mask prevent the spread of infection while frequent hand washing and observing all other rules of hygiene – be it personal hygiene or environmental sanitation, prevent the virus from entering our body. Proper hygiene and sanitation reduce the microbial load and prevents infections/disease and thus, help in keeping the individual in good health. Overall good health, appropriate diet and healthy lifestyle practices keep our vigour and immunity up to the mark and help us in fighting the infection in case it still gains an entry.

Women being the usherers of next generation, their health status and appropriate hygiene should be given due importance so that the inter-generational cycle of malnutrition and poor health does not set in and Mahatma GandhiJi's dream of "Swachh Bharat–Swasth Bharat" is realised; to quote him, *"It is health that is real wealth and not pieces of gold & silver"*!!

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पेयजल एवं स्वच्छता विभाग
जल शक्ति मंत्रालय
DEPARTMENT OF DRINKING WATER AND SANITATION
MINISTRY OF JAL SHAKTI
स्वच्छ भारत
एक कदम स्वच्छता की ओर
SBM 2.0
WHAT MAKES A VILLAGE ODF PLUS ?

A village which sustains its Open Defecation Free (ODF) status, ensures solid and liquid waste management and is visually clean.

Status of Safe Drinking Water and Sanitation

H L Sharma

The quality of water, sanitation and hygiene (WASH) has a significant impact on improving the health outcomes and ameliorating the economic condition of rural masses. Especially, the present worldwide outbreak of COVID-19 pandemic has strongly demonstrated the critical role of sanitation, hygiene and access to clean water in protecting human health by preventing and containing diseases.

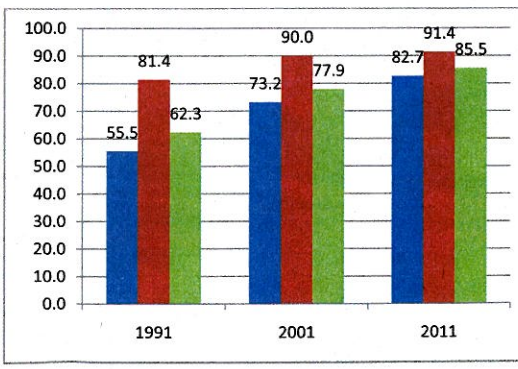
Access to safe drinking water, sanitation and hygiene is an important indicator of the level of socio-economic development of a country. In fact the richer a country, the more access it has to these basic amenities of life and health and vice-versa. The adequate provision of safe water, sanitation and hygiene (WASH) is crucial to achieve sustainable development and can contribute greatly for the eradication of poverty, hunger and disease in a country like India where more than one fourth rural population still lives below poverty line. The present worldwide outbreak of COVID-19 pandemic has strongly demonstrated the critical role of sanitation, hygiene and access to clean water in protecting human health by preventing and containing diseases.

The primary responsibility of providing safe drinking water and sanitation facilities in India rests with the State Governments. They take necessary steps for augmentation, conservation and efficient management of water resources. The efforts of State Governments are supported and supplemented by the Union Government by providing technical and financial assistance through various schemes and programmes. The Government, in order to monitor and implement its schemes, had created the Department of Drinking Water Supply under the Ministry of Rural Development in 1999, which was subsequently renamed as the Department of Drinking Water and Sanitation in 2010. Keeping in view the significance of rural water and sanitation, Ministry of Drinking Water and Sanitation was created as a separate ministry on 13th July, 2011 which was merged with Ministry of Jal Shakti in May 2019. Thus, at the central level, the Department of Drinking Water and Sanitation under the Ministry of Jal Shakti is the nodal agency responsible for policy planning, funding and coordination of programs for safe drinking water and sanitation in rural areas. Presently, the department has been assigned the responsibility of monitoring and implementation of two key schemes of the Government: (i) Swachh Bharat Mission-Gramin (SBM-G), and (ii) the Jal Jeevan Mission (JJM). The first scheme aims at improving the sanitation facilities in rural areas and the second one on providing adequate and safe drinking water to the rural households.

Status of Safe Drinking Water

As per the latest population census, 82.7 percent population living in rural areas has access to safe drinking water (tap/ handpump/ tubewell) as against 91.4 percent in urban areas and 85.5 percent in the country as a whole (Figure 1). The proportion of rural population having access to safe drinking water has improved rapidly from 55.5 percent in 1991 to 82.7 percent in 2011. This means that nearly 340 million new people gained access to safe drinking water

Figure 1: Households with Access to Safe Drinking Water in India (%)

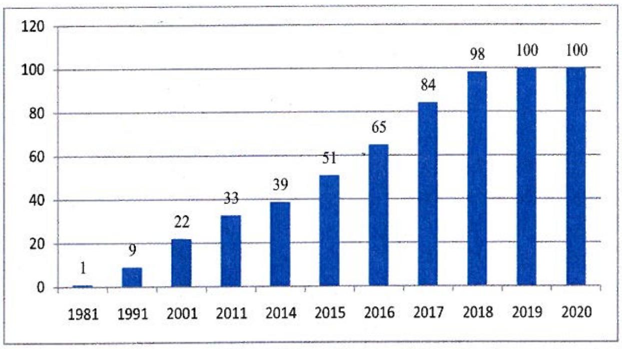


Source: Economic Survey 2019-20 Vol. 2, A-165 during the period under context. Though the rural-urban inequality in the access to safe drinking water has narrowed down tremendously from 26 percent in 1991 to nearly 9 percent in 2011, yet still it is quite high.

Status of Rural Sanitation

The rural sanitation coverage in India (reflected through IHHL) had been very dismal during the 50 years of planned era of development. In 1981, merely 1 percent of rural population had access to sanitation facilities (Figure 2). With the launch of the Central Rural Sanitation Programme in the year 1986 and introduction of the Nirmal Bharat Abhiyan in 1999, the rural population using sanitation facilities improved remarkably from 9 percent in 1991 to 22 percent in 2001 and 32.7 percent in 2011. As per the baseline survey conducted by Ministry of Drinking Water & Sanitation, in October 2014, about 55 crore people resorted to open defecating in rural areas, meaning thereby that nearly 61 percent rural population lacked basic sanitation facilities. Realising the role of cleanliness in healthy living and to accelerate the efforts to achieve universal sanitation coverage, the Prime Minister of India launched the Swachh Bharat Mission on 2nd October, 2014. Due to special focus on sanitation and cleanliness in rural areas, the country made rapid and remarkable strides in reaching out the targets of cleanliness by putting an end to the practice of open defecation. All the villages (603,177) spread over 36 States and Union Territories were declared 'open defecation free' on 2nd October 2019. Thus, over 55 crore rural people gained access to sanitation in a record time period of 5 years, which is quite unprecedented.

Figure 2: Rural Sanitation Coverage in India (IHHL %)



Source: Department of Drinking Water & Sanitation, Ministry of Jal Shakti, GOI

Government Expenditure on Rural Drinking Water and Sanitation

Total expenditure of government on rural drinking water and sanitation which was to the tune of Rs. 10,565 crore in 2010-11, went up to Rs 21,494 crore in 2020-21, reflecting a compound annual growth rate of 6.67 percent (Table 1). The expenditure on rural drinking water (tap/ handpump/ tubewell) was Rs. 8,985 crore in 2110-11. It went up to Rs. 11,500 crore in 2020-21 witnessing a marginal rate of 2.27 percent per annum. In contrast to it, expenditure on rural sanitation which was Rs. 1,580 crore in 2010-11, shot up to Rs. 9,994 crore in 2020-21 reflecting a whopping CAGR of 18.26 percent.

Government accorded more priority to rural water supply as compared to sanitation up to the year 2014-15 (Figure 3). But, after the launch of Swachch Bharat Mission-G, the focus shifted towards providing sanitation facilities in rural areas, as a result, the share of rural sanitation shot up from 15 percent in 2010-11 to the ever peak level of 72 percent in 2018-19. But after attaining the objective of 100 percent ODF in the country in 2019, the focus again shifted towards rural water supply.

Economic and Health Effects

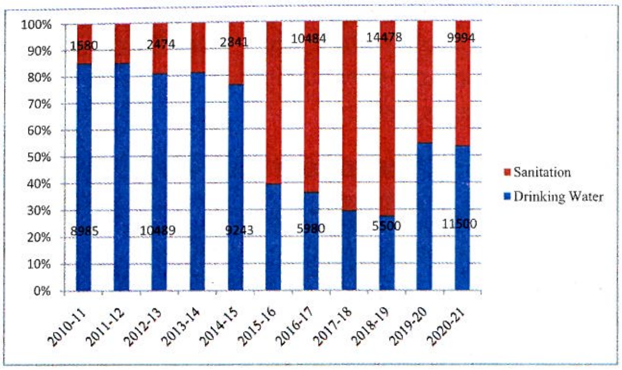
The quality of water, sanitation and hygiene (WASH) has a significant impact on improving the health outcomes and ameliorating the economic conditions of rural masses. The lack of sanitation facilities in a highly populated country like India has severely debilitating effects not only on the human health but also on the economy of the country. Consumption of unsafe water, improper disposal of human excreta, lack of hygiene and improper

Table 1: Government Expenditure on Rural Drinking Water and Sanitation (Rs Crore)

Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Water	8985	8493	10489	9691	9243	4369	5980	7038	5500	10001	11500
Sanitation	1580	1500	2474	2244	2841	6703	10484	16888	14478	8338	9994
Total	10565	9993	12963	11935	12084	11072	16464	23926	19978	18339	21494

Note: Values for 2019-20 and 2020-21 are revised and budget estimates respectively.
Sources: Department of Drinking Water and Sanitation, Demands for Grants, Relevant Years

Figure 3: Government Expenditure on Rural Drinking Water and Sanitation (Rs Crore)



Note: Values for 2019-20 and 2020-21 are revised and budget estimates respectively.
Source: Department of Drinking Water & Sanitation, Ministry of Jal Shakti, GOI

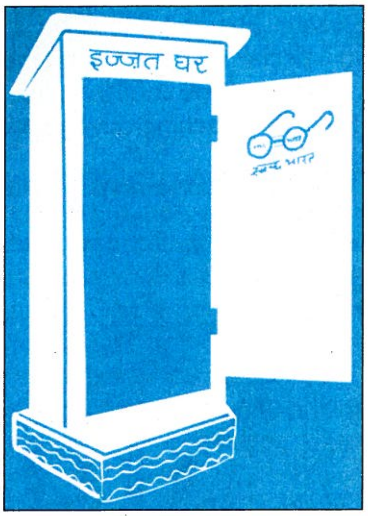
disposal of solid & liquid waste have been the major causes of many diseases in India. It is responsible for the stunting of 48 percent children and deaths of over one lakh children in India annually, as per UNICEF report. Due to the lack of proper sanitation in the country, more than 30 million people suffer from waterborne diseases leading to a huge loss of around 73 million working days every year. The resulting economic cost is estimated over 6 percent of GDP each year, as per World Bank estimates. The quality of life of rural people can be substantially improved by improving access to safe drinking water and sanitation. UNICEF in the report on, Financial and Economic Impacts of Swachh Bharat Mission in India, brings into light that a household in an ODF village in rural India, saves around Rs. 50,292 every year due to the averted medical cost, time saved and value of saved lives.

Government Initiatives

Though water supply and sanitation were added to the national agenda during the first five-year plan (1951-56), yet no serious effort was made to improve the access of people to these services up to middle eighties. In 1986, two central government schemes were launched to accelerate the pace of drinking water supply and sanitation facilities in rural areas of the country. Firstly, National Drinking Water Mission was started to focus on rural drinking water supply, which was subsequently renamed as Rajiv Gandhi National Drinking Water Mission in 1991. Secondly, the Central Rural Sanitation Programme (CRSP) was launched in 1986, for bettering the sanitation scenario in rural India. The programme was the first of its kind to provide 80 percent financial assistance to BPL families for constructing individual household toilets. Despite the massive outlays, the Programme led to a marginal increase in the rural sanitation coverage. This was mainly due to the absence of community participation, high cost designs of toilets and lack of awareness for sanitation among rural people.

The State intervention in rural sanitation gained momentum with strength, when Total Sanitation Campaign (TSC) was launched in April 1999. The TSC emphasised on information, education and communication (IEC) to increase awareness among the rural masses resulting in the generation of demand for sanitary facilities. It also gave emphasis on imparting sanitation education at the school level for bringing about attitudinal and behavioral changes towards sanitation & hygiene from a younger age. Subsequently, Nirmal Bharat Abhiyan (NBA) the successor programme of the TSC, was launched from 1st April, 2012. Its main objective was to increase the rural sanitation coverage through renewed strategy and saturation approach.

Despite the launch and implementation of many schemes and programme, a large proportion of rural population lacked access to clean potable water and sanitation facilities up to the year 2012. In this backdrop, to accelerate the efforts for achieving universal sanitation coverage, the Prime Minister of India, launched the Swachh Bharat Mission on 2nd October, 2014. The mission aimed at achieving the ambitious goal of providing access to sanitation for all rural households by eliminating the practice of open defecation within a period of five years. Swachh Bharat Mission (Gramin) achieved a historic milestone when all the villages and Gram Panchayats of the country, after constructing over 100 million toilets in rural India, declared themselves open-defecation free on 2nd October 2019, the day coinciding with 150th birth anniversary of Mahatma Gandhi. The Central Government allocation to SBM-G for the five year period from 2014-15 to 2018-19 has been estimated to be Rs 1,00,447 crore.



To ensure that the open defecation free behaviour is sustained, no one is left behind and waste management facilities are accessible in all villages; Swachh Bharat Mission (Grameen)-Phase II commenced with effect from 19th February, 2020. Phase-II of SBM-G is just a shift from ODF to ODF-Plus. It is being implemented from the financial year 2020-21 to 2024-25 in mission mode with a total outlay of Rs. 1,40,881 Crore.

The present Government at the centre has accorded high priority not only to rural sanitation but also on providing clean & safe drinking water to each & every rural household. As a part of this endeavour, Prime Minister announced Jal Jeevan Mission-Har Ghar Jal on 15th August, 2019. The JJM aims to provide adequate and safe drinking water to every rural household through a functional tap connection by the year 2024. For the implementation of this pan India movement on water, there is provision of an outlay of Rs 3.60 lakh crore in partnership with States.

Challenges and Future Initiatives

The total population of India is estimated to reach around 1388 million by 2021. Due to rapid growth of population, per capita annual water availability in the country came down from 5,177 cubic meter in 1951 to 1,545 cubic meter in 2011. It is estimated to decline further to 1,486 cubic meter by 2021. If the current trends in the demand and supply of water continue, then soon India is likely to become a water-scarce country. This will have serious implications for the sustainability of agriculture, food security, livelihoods, rural sanitation and sustainable growth.

For making India a water secure nation, especially the rural regions of the country, a lot of challenges are needed to be addressed from both, the demand as well as the supply side of water. From the demand side, population pressures, changing cropping pattern, high rate of urbanisation, rapid industrialisation and issues relating to climate change are need to be urgently addressed. On the supply side, proper conservation, storage and distribution of water is needed to be prioritised. Increased public investment for the creation of potable water infrastructure is also required.

Over exploitation of ground water is also a cause of concern. In fact, India is the largest user of groundwater in the world. Groundwater (GW) is the source of fulfilling more than 85 percent demand for potable water in rural areas. The problem with GW is that it is not only depleting at a rapid rate, but in some parts of the country, it is highly contaminated with the presence of arsenic and fluoride. In this context, necessary technology interventions are needed for the treatment and removal of contaminants and promote the re-use of water. Rain water harvesting and artificial recharge of ground water by utilising surplus rainfall runoff is also the best supply side water management option for the sustainability of ground water sources.

Proper water resource management, revival of aquifers and traditional rainwater harvesting structures with the active participation of local communities and NGOs also need to be promoted. More provision of funds to develop infrastructure for solid and liquid waste management, plastic waste management and grey-water management is needed to ensure sanitation facilities in a sustainable manner in rural areas. Last but not least, public awareness regarding the rational use of water and change in the attitude of people towards sanitation need to be promoted through information, education and communication.

In nutshell, it can be concluded that India not only witnessed a remarkable progress in the supply of safe potable water to rural households, but also registered a credible improvement in providing sanitation facilities during the recent past. Yet, a lot remains to be achieved as the county lags far behind most of the developed countries of the world with respect to the access of rural people to safe drinking water and sanitation.

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Decentralised Governance: Concept and Implications in Planning and Development

Dr. Debabrata Samanta and Dr. Sibananda Senapati

Decentralised governance, in true sense, views the process of development not as the sole responsibilities of the state or the community, rather it involves collective responsibilities. In this form of governance people's participation is recognised as a means of empowerment. Increase in literacy level, access to technology and process of digitalisation are allowing for greater public participation in policy planning.

The foundation of democracy of the modern time was laid by 'The Magna Carta' of England in 1215. It gained its prominence in some countries after the World War I (France, Germany etc.) and in many other countries in Europe after the World War II. From raising awareness in 1960s, democratic decentralisation has evolved as a process of engagement with government in decision-making related to development programmes as well as management, production and allocation of public goods and services.

Since last few decades, new modes of governance like 'democratic decentralisation', 'participatory development' and 'civil society' have gained immense importance in the development paradigm. During 1990s, many countries including Philippines, Bolivia, Tanzania, Uganda and India have amended their legislations towards decentralised governance and created new spaces for people's participation and a process of participatory development planning. Along with these countries, there were only 39 countries in 1974, which had electoral democratic governance, the number increased to 121 in 2002 (World Bank, 2004). Currently, it is found that, more than half (57 percent) of the world's population lives in some form of democracy, compared to 36 percent in 1975 (International Institute for Democracy and Electoral Assistance, 2019). This rapid democratisation is stated to have brought the government closer to people and made the process more participatory. The primary aim of democratic governance is to give people an empowered and meaningful role to participate in the decision-making process. Rather than following traditional approaches like bureaucratic decision-making or decision-making by the political representatives, people's participation in the decision-making process is being seen by the policy makers as an essential pre-requisite for improving the performance of public service delivery system (World Bank, 2004). Decentralisation, or decentralising governance, as referred by UNDP (United Nation Development Programme, 1997) is the restructuring or reorganisation of authority so that there is a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiary. This increases the overall quality and effectiveness of the system of governance, while increasing the authority and capacities of sub-national levels. It is expected to contribute to key elements of good governance, such as

increasing people's opportunities for participation in economic, social and political decisions; assisting in developing people's capacities; and enhancing government responsiveness, transparency and accountability. There are three major forms of decentralisation, namely 'Deconcentration', 'Delegation' and 'Devolution'. Deconcentration is the weak form of decentralisation and refers to mere shifting of responsibilities from central government officials in the capital city to those working in regions, provinces or districts and grass root levels. On the other, delegation refers to transferring responsibility for decision-making and administration of public functions to semi-autonomous organisations not wholly controlled by the central government, but ultimately accountable to it. Devolution is the strongest from of decentralisation, where the central government transfer functions, authority for decision-making, finance, and management to quasi-autonomous units of local government with corporate status.

The decentralised governance, in true sense, viewed the process of development not as the sole responsibilities of the state, or the community, rather it involves collective responsibilities. In this form of governance people's participation is recognised as a means of empowerment. The idealised aim is 'to enable people to present, share, analyse and augment their knowledge as the start of a process. The ultimate outcomes are, however, enhanced knowledge and competence, and ability to make demands, and to sustain action (Chambers, 1994).

Decentralised Governance in India: A Historical Perspective

India has adopted decentralised and participatory governance system since the inception of the five year plans. The effort to promote decentralised governance in rural areas is practiced by government through the promotion and strengthening of the Panchayati Raj system. The need for Panchayati Raj system of participatory governance is traced as far back as to the recommendations of the Balwantrai Mehta committee in 1957. The committee recommended a three-tier Panchayat system at district, block and village levels. The National Development Council approved the recommendations of the Mehta Committee in January 1958 and suggested that each state should implement this as best suited to its own particular conditions. The second plan document acknowledged the necessity of development of democratic institutions and emphasised upon 'comprehensive village planning' for efficient distribution of state benefit to weaker sections of society. Some other important recommendations are , by the Dantwala Committee on Block Planning in 1978, which prescribed integration of block plan with district plans, Ashok Mehta Committee in 1978 recommended considering district as a first point of decentralisation, and L.M Singhvi Committee, recommended involvement of Panchayati Raj institutions in basic planning and implementation of development projects and consider Panchayati Raj Institutions as Institute of Self Governance to facilitate the participation of the people in the process of planning and development (Datta & Sodhi, 2020). Although these recommendation were considered as the stepping stone of the Panchayati Raj Institution (PRI) in India, the 73rd Constitutional Amendment, in 1992, have formalised such an institution by giving PRI the constitutional provision to constitute three-tier panchayat system in each state as well as emerge as an institute of self-governance. This Constitutional Amendment mandated setting up three tier Panchayati Raj Institution (PRI) system in rural areas, holding of election in regular interval and institutionalised participation of citizen in planning process.

Panchayati Raj Institution in India

Panchayati Raj Institution (PRI) is a three-tiered structure in India. PRIs include Gram Panchayats (village level), Mandal Parishad or Block Samiti or Panchayat Samiti (Block level), and Zila Parishad (district level).

(i) Zila Parishad (ZP) or district panchayat: Each district has one Zila Parishad or district panchayat.

(ii) Block Panchayat (BP) or Panchayat Samitis: Each block in the said district has one block panchayat.

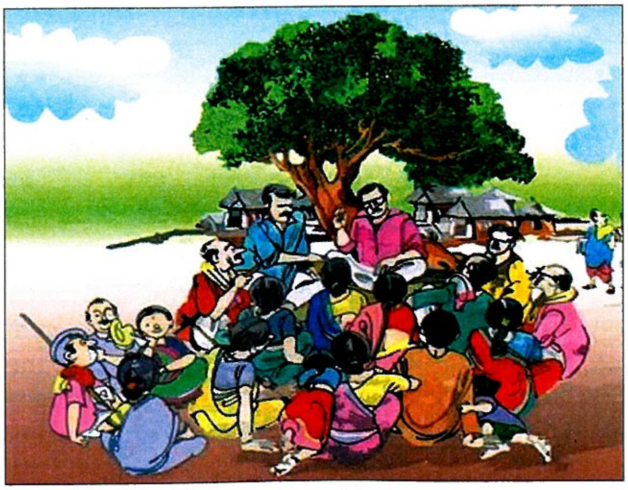
(iii) Gram Panchayat (GP): A Gram, as defined by law, may consist of a single village or a cluster of adjoining villages. It is divided into a minimum of five constituencies (again depending on the number of voters the Gram is having). From each of these constituencies, one member is elected. Body of these elected members is called the

Gram Panchayat. Size of the GPs varies widely from state to state.

PRIs, under the law, are required to prepare plans for economic development and social justice for their areas, and also implement them. After the 73rd Constitutional Amendments, these bodies have been granted greater powers and additional financial resources to promote local economic and social development. The Article 243ZD(1) recommended for constitution of District Planning Committee at district level to integrate plans prepared by panchayats and municipalities and to prepare draft development plan for district.

PRI and implementation of Mahatma Gandhi National Rural Employment Guarantee Act

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005 ensures minimum 100 days of wage employment for rural unskilled workers. MGNREGA has introduced a change in paradigm of wage employment programme in India through the features of legal compulsion and demand driven component. The decentralised governance structure has significant role to play in implantation of MGNREGA. The role of Gram Panchayat is quite pivotal one. In one hand, the Act mandates that the selection and prioritisation of works to be taken up in a financial year has to be done by Gram Sabha. People are expected to participate in gram sabha for selection and prioritisation of works to be implemented by the PRI, to address the development needs of each village. On the other, the Act also prescribes that works be allotted in a way that at least 50 percent of the total works (in terms of costs) be undertaken by the Gram Panchayats. This is to provide the Gram Panchayats a substantive role in the implementation of works. The Act directs the District Programme Coordinator at district level to prepare a Labour Budget every year in the month of December for next financial year, which will contain details of the anticipated demand of unskilled manual work for the next year. A time bound participatory planning exercise, with bottom up approach, is required to undertake preparation of this labour budget and shelf of work for next financial year. Decentralised planning of works related to natural resource management, agriculture and allied activities, providing sustainable livelihood opportunity had been emphasized. Along with this, MGNREGA has been integrated with Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Integrated Watershed Management Programme, Command Area and Water Management schemes for better outcomes in water conservation and water harvesting works. The recommended work plan need to be sent to the concerned gram panchayat for community validation and vetting and the final document will reflect the people's suggestion recommended at gram sabhas under gram panchayat involved in those works.



Livelihood Promotion Scheme and PRI

Swarnajayanti Gram Swarozgar Yojana (SGSY) was designed to pursue sustainable livelihood opportunities through Micro-Finance and Micro-Enterprises for population Below Poverty Line (BPL) in the country and to provide sustained level of income over a period of time. This objective was planned to achieve through the creation of Self Help Groups (SHGs) by the process of social mobilisation, providing training and capacity building and provision of creating income generating assets. SGSY was converted to the National Rural Livelihood Mission (NRLM) or Aajeevika launched by the Ministry of Rural Development (MoRD), Government of India in June 2011. NRLM has set out with an agenda to cover 7 crore rural poor households, across 600 districts, 6000 blocks, 2.5 lakh Gram Panchayats and 6 lakh villages in the country through self-managed Self Help Groups (SHGs) and federated institutions and support them for livelihoods collectives in a period of 8-10 years. NRLM believes in harnessing the innate capabilities of the poor and complements them with capacities (information, knowledge, skills, tools, finance and collectivisation) to participate in the growing economy of the country. NRLM follows a demand driven strategy, the States have the flexibility to develop their livelihoods-based perspective plans and annual action plans for poverty reduction.

In NRLM, the role of PRIs could be to facilitate/ support in social mobilisation, institution building, Participatory Identification of Poor (PIP) and its endorsement in Gram Sabha, allocating resources to the priority demands of the SHGs and their federations in the annual plans/activities of the PRIs and coordinating with different departments and agencies on behalf of the SHG network. SHGs and their Federations could encourage their members to attend the gramsabha for placing their demands and needs. SHG federations expected to participate actively in the functional committees of GP (if they are members/invitees), in planning processes and in community monitoring of implementation of projects by/through GPs. Participatory Gram Panchayat Development Plan and Planning for Poverty alleviation and livelihood promotion need to have a clear integrated poverty reduction plan with a component addressing vulnerabilities of poor and marginalised people and their livelihood opportunities.

Current Development Challenge and PRI

Rural population in India is socio-economically vulnerable due to their dependence on agriculture and related activities for their livelihood. Country's 69 percent youth population aged between 18-34 years live in rural areas. Hence, recent rural development schemes like NRLM, PMKVY, DDU-GKY, Aatma Nirbhar Bharat Abhiyan are programmed to provide skill, to create self-employment opportunities and to remove poverty through participatory approaches. In the current COVID-19 pandemic situation the revival of rural economy in a time bound manner could boost economic growth of the country. Sectors including health, sanitation, agri business, SME could significantly contribute to country's GDP.

National Skill Development Corporation (NSDC) adopted a Public Private Partnership (PPP) model which was established to promote skill development in the country through creation of large, quality and for-profit vocational institutions. NSDC also support funding to build scalable and profitable vocational training initiatives. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by NSDC, with objective of enabling Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood through Skill Certification Scheme. Strategy of PMKVY include -short term training that is imparted at PMKVY Training Centres and benefits candidates of Indian nationality who are either school/college dropouts or unemployed; recognition of prior learning; assessing and certifying as Recognition of Prior Learner. The Scheme contributed in terms of providing skill training to nearly 3 million and, currently there are more than 22000 training centers in all over India.

Deen Dayal Gramin Kaushal Yojana (DDU-GKY) launched in the year 2014 also focused on placement-led skill training initiative of the Ministry of Rural Development. The scheme aims at transforming poor rural Indian youth ages of 15 and 35 years from poor families into skilled productive employees to empower industry with the right manpower for success and growth. Like PMKVY scheme, DDU-KGY as a part of the Skill India campaign also works in Public Private Partnership mode. At DDU-GKY, a three tier implementation structure is followed, where, the National Unit (NU) at the Ministry of Rural Development acts as the investor, policy maker and technical support provider. State Skill Missions manage and monitor implementation and Training Partners implement projects in specialist trades in compliance with norms and standards set by DDU-GKY.

DDU-GKY provides adequate skilled man-power, in industry relevant job roles, so that employers have access to a wide talent pool to hire from. A wide range of industries and sectors such as Agriculture, Automotive, Beauty & Wellness, Construction, Electronics, Gems and Jewellery, Healthcare, Logistics, Retail and Tourism & Hospitality amongst many others are included under DDU-GKY. Till date more than 10 lakh youth are trained and 5.59 lakhs got their placement. Huge job opportunities were also created in the COVID-19 situation in terms of making mask, sanitiser, face shield, protective clothing and community kitchen.

Challenges

Decentralised and participatory development is not free from criticism and challenges. It is often criticised for over emphasis on process of planning. Participatory development is also questioned from the standpoint of unequal empowerment. It at times reproduces social inequalities within communities. Evidence says that, some stakeholders have lesser voice and influence than others and this is particularly true with women, who continue to remain marginalised (Cornwall, 2003). In the context of women's empowerment, one may argue that mere participation of women in decision-making spaces may not signify empowerment, and there is a difference between 'formal' power and 'effective' power. While there is no doubt that women have been given formal power to get elected and there is prescribed mandate to get them involved in decision-making, they continue to face a masculine model of politics, a dual burden of domestic chores and professional obligations, and lack of confidence and self-esteem (Shvedova, 2005). In India, there are instances of women holding formal rather than effective power due to reasons like opposition from the families, interference by husbands, discrimination in meetings, lack of community support, lack of education and dependence on men (Hust, 2004).

Way Ahead

Despite such shortcomings, participation, as a political concept as well as a process, has opened up space for new relationship between governments and citizens. The concept carries dynamic implications in the wake of recent policies of decentralisation, where people are not only expected to voice their opinions during elections, but also enjoy the power to participate in the decision-making processes. Increase in literacy level, access to technology and process of digitalisation are helping public participation in government policy planning.

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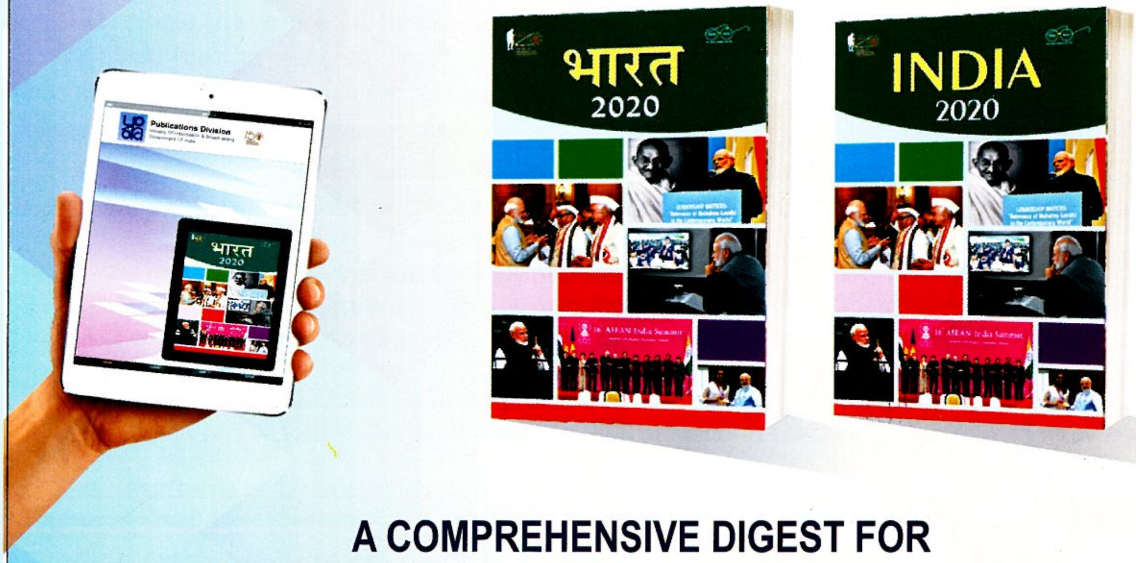

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